



The role of self-compassion in mood repair for people with
recurrent depression with and without experience of mindfulness-
based cognitive therapy.

Submitted by Gemma Palmer, to the University of Exeter
as a thesis for the degree of Doctor of Clinical Psychology, April 2018

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Author's Declaration

The literature review was completed independently by the author. In terms of the empirical work, the design protocol (based on a previous study by Kuyken et al., 2010) was developed in collaboration with Dr Hans Kirschner, who conducted a concurrent enquiry into the psycho-physiological responses of the participants. The interview schedule, which constitutes the main part of this study was designed solely by the author. Dr Kirschner's study commenced before this project, and so ethical approval was gained with his name as chief investigator, and the author added at a later date. Participants for this study were recruited by the author. All participants were tested and interviewed by the author, with the first 3 participants being tested in collaboration with Dr Kirschner. All other aspects of the study were completed by the author including data entry, analysis, and write up.

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SCHOOL OF PSYCHOLOGY

DOCTORATE IN CLINICAL PSYCHOLOGY

LITERATURE REVIEW

How do Mindfulness-Based Therapies Affect Interpersonal Change?

A Qualitative Systematic Review

Trainee Name: **Gemma Palmer**

Primary Research Supervisor: **Dr Janet Smithson**

Senior Lecturer in Psychology

Secondary Research Supervisor: **Dr Anke Karl**

Senior Lecturer in Clinical Psychology

Target Journal: Behaviour Research and Therapy

Word Count: 5990 words (excluding abstract, table of contents, list of figures, references, footnotes, appendices)

**Submitted in partial fulfilment of requirements for the Doctorate Degree in
Clinical Psychology, University of Exeter**

Abstract

Recent studies have identified potential change within interpersonal relationships following mindfulness-based interventions such as MBSR and MBCT; however, few studies have explored this in a clinical sample, from the participants' perspective. This study aimed to explore this phenomenon by synthesising qualitative studies to answer the following question: How do people with a mental health diagnosis experience interpersonal change following MBSR and MBCT.

A systematic search strategy identified 117 studies, of which 12 met the final inclusion criteria. A thematic synthesis was conducted based on the protocol developed by Thomas and Harden (2008). The thematic synthesis revealed an overall theme of connection, with subthemes of 'the group as a community'; 'reconnecting with the self'; 'skill development' and 'reconnecting with others'. These themes were further synthesised to consider the interconnections between them. This revealed two points of interest: the power of the group community and intra- to inter-personal development. These themes were explored in relation to existing literature.

The results are discussed in relation to the limitations of the study, and future research recommendations are considered.

Keywords: Mindfulness, Interpersonal Relationships, Qualitative Research

Introduction

Over the past ten years research into mindfulness-based interventions for mental health difficulties has expanded greatly. Protocol-driven programmes such as Mindfulness-Based Stress Reduction (MBSR) and Mindfulness-Based Cognitive Therapy (MBCT) have been shown to significantly reduce symptoms for a range of physical and mental health conditions and improve individuals' well-being (Fjorback, Arendt, Ørnbøl, Fink, & Walach, 2011).

Mindfulness has been defined as “paying attention in a particular way: on purpose, in the present moment, and non-judgementally” (Kabat-Zinn, 1994, p.4). It aims to train individuals in attentional control, de-centering from negative thoughts and mindfulness attitudes of non-judgement and being rather than doing (Alsubaie et al., 2017). MBSR was first developed in the 1970's as a group intervention for individuals with chronic pain or stress-related conditions (Wyatt, Harper, & Weatherhead, 2014), combining mindfulness skills with psychoeducation in stress and relaxation. Following MBSR's success, MBCT was developed to merge the MBSR programme with cognitive therapy techniques, primarily for the treatment of people with recurrent depression who were at significant risk of relapse (Alsubaie et al., 2017). Both interventions comprise of eight group-based sessions and are experiential and psychoeducational in nature.

The evidence for efficacy of these groups is considerable. Fjorback et al., (2011) conducted a systematic review of randomised-controlled trials of MBSR and MBCT and concluded that MBSR improved mental health and MBCT reduced the risk of depressive relapse, with all studies achieving a medium effect-size. The application of these interventions is extending to other

mental and physical health conditions, with efficacy studies conducted in cancer, generalised anxiety, panic, social phobia, bi-polar disorder and insomnia, among others (Hofman, Sawyer, Witt, & Oh, 2010). More recently, researchers have begun to concentrate on the possible mechanisms which underlie mindfulness-based interventions to identify the active ingredients and maximise efficacy. Although there are several studies which posit these mechanisms (Alsubaie et al., 2017; Stefan, Capraru, & Szilagyi, 2018; Britton et al., 2017), to date there have been no definitive conclusions.

One of the specific outcomes of mindfulness-based interventions has been a noticeable change in interpersonal relationships. Interpersonal relationships are fundamental to both the aetiology of many mental health conditions and the key to supporting an individual's recovery (Griffin, 1990). Interpersonal factors are one of the strongest predictors of chronicity within depression (Joiner, 2000), yet are also considerably affected by the presence of mental health problems, in terms of deficits in social skills and increase in isolation (Hames, Hagen, & Joiner, 2013).

Various studies have quantitatively assessed the impact of mindfulness on participants' ability to empathise with others (Lamothe, Rondeau, Malboeuf-Hurtubise, Duval, & Sultan, 2016), to form satisfying relationships (Burpee & Langer, 2005) and to weather challenges within relationships (Carson, Carson, Gil, & Baucom, 2004). Furthermore, a recent systematic review established a significant increase in empathy, compassion and pro-social behaviours following mindfulness interventions (Luberto et al., 2017). However, few studies have explored the participants' subjective experience. Whilst standardised measures can objectively quantify change in mindfulness skills and

interpersonal outcomes, they cannot speak to the process, quality and personal experience of interpersonal changes.

Qualitative research methods appear well suited to the exploration of change within mindfulness as they resonate with the core principles (Cairns & Murray, 2015). Allen, Bromley, Kuyken and Sonnenberg (2009) posit that using a qualitative methodology can elucidate the underlying mechanisms and lead to a better understanding of the psychological experiences encountered during therapeutic interventions. However, Wyatt et al., (2014) cite Downe (2008) when they caution that individual qualitative studies risk being ostracised from wider policy and practice, due to their inability to be generalised to wider populations. To counter this limitation and achieve higher order goals, Sandelowski, Docherty and Emden (1997) argue that synthesising qualitative studies is critical.

Rationale

Since the number of qualitative studies of MBSR/MBCT is increasing, it feels appropriate to consider what contribution these offer in the understanding of interpersonal outcomes for participants. Previous systematic reviews have attempted to quantify this effect in terms of outcome data for empathy, perspective-taking and prosocial behaviour, but to date, no qualitative syntheses have been conducted. Additionally, most existing mindfulness systematic reviews have either sampled non-clinical populations, e.g. healthcare professionals or university under-graduates; or mixed (physical and mental health) clinical samples. This synthesis will consider a more homogenous clinical sample of people accessing mental health services, to synthesise their interpersonal experiences, following MBSR/MBCT.

Objectives

The aim of this systematic review is to answer: How do people with a mental health diagnosis experience interpersonal change following MBSR/MBCT.

Methods

Protocol and Registration

This review followed the preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P; Moher et al., 2015), to identify, screen and synthesis articles. As the PRISMA-P is primarily for the consideration and synthesis of quantitative studies, the thematic synthesis followed Thomas and Harden's (2008) protocol for integrating multiple qualitative studies.

Eligibility Criteria

Studies eligible for inclusion followed the PICOS (Population, Intervention, Comparator, Outcome, Setting) criteria in table 1.

Table 1

PICOS Criteria

Criteria	Inclusion criteria	Exclusion criteria
Population	Aged ≥ 18 years Mental health diagnosis or accessing mental health service. Attended an MBSR or MBCT course	Aged < 18 years Not clinical group No mental health diagnosis Primary diagnosis of physical health issue Traumatic brain injury Substance misuse
Intervention	MBSR or MBCT course (and adapted if < 1 session)	Significantly adapted MBSR and MBCT (≥ 1 session) Mindful parenting course Other mindfulness-based intervention Interventions where mindfulness is not the primary intervention (i.e. DBT, ACT)
Comparator	Any comparator was considered, although only MBSR/MBCT individual was included in analysis	Data from family members, partners, teachers, health professional perspectives were excluded
Outcome	Any qualitative studies or mixed methods studies – thematic analysis, framework analysis, content analysis, discourse analysis, interpretative phenomenological analysis, grounded theory Studies which mention 'interpersonal relationships', 'relating to others' or a related term in the abstract	Non-qualitative studies Non-qualitative data from mixed methods studies were excluded Studies which did not mention as aspect of 'interpersonal relationships', 'relating to others' or a related aspect in the abstract
Setting	All mental health settings and services including primary, secondary and tertiary care	None

Study designs.

Eligible studies were peer-reviewed journals, or unpublished dissertations (with full-text available), published before 15th February 2018. All study designs meeting the PICOS criteria were considered.

Population.

Studies were included from an adult population where the person had a mental health diagnosis (defined by DSM-5) or accessed a mental health service and had participated in an MBSR/MBCT course.

Interventions.

All studies defining their intervention as MBSR or MBCT were included. MBSR courses were defined as an intervention based on the eight-week curriculum originally developed by Kabat-Zinn (1990), consisting of mindfulness practice, inquiry and non-judgemental acceptance of experiences. MBCT courses were defined as an intervention based on the eight-week curriculum originally developed by Segal, Williams and Teasdale (2002), which incorporates elements of cognitive behavioural therapy (CBT; e.g. awareness of negative automatic thoughts and teaching decentring) with MBSR. Studies that defined their intervention as “adapted” were included if the adaption was limited to minor adaptations (<1 session) and was considered appropriate for the target population. Studies were limited to MBSR/MBCT because both have a significant research portfolio with well-defined treatment protocols and are therefore more able to offer greater homogeneity for effective synthesis (Fjorback et al., 2011).

Mindfulness-based parenting courses were excluded from the study, as this adaption was considered a significant change from the original MBSR/MBCT protocols, and specifically included interventions aimed at relationship change (Bögels & Restifo, 2013), which may have skewed the meta-synthesis.

Comparator.

Studies containing comparators were considered; however, for clarity of the synthesis, only data from the group with mental health diagnoses were considered in the analysis.

Outcome.

Only studies with qualitative data outcomes were included. All qualitative analysis methods were included. Articles were considered relevant if their abstract discussed “relating to others”, or a related synonym in their outcomes.

Setting.

All mental health settings and services were considered, including primary, secondary and tertiary care.

Language.

Only studies in the English language will be accepted. Unfortunately, funding was not available for translation services.

Information Sources

A systematic review of four electronic databases (PsychInfo, Medline, PubMed and Web of Science) was conducted, for dates from database inception up to 15th February 2018. Backchaining of references from included articles was also employed to gather further ‘grey’ data and ensure data saturation. If full text was not available electronically, the authors were contacted to obtain copies.

Search Strategy

A scoping exercise utilising search terms related to interpersonal relationships was conducted; however, due to the high number of possible synonyms, it was felt that the potential for relevant articles to be overlooked was too high. Therefore, to ensure that all relevant articles were considered, the review's search strategy was purposefully broad.

Relevant articles were qualitative studies which employed a mindfulness intervention. The specific search strategy is included in Table 2. Boolean operators were employed to ensure optimum coverage. No limitations were placed on the initial searches. Articles were included if they were available before 15th February 2018, written in the English language and from an adult population. No restrictions were placed on the country of origin, providing the article was available in English. The grey data search comprised of a backchaining review of the references for all included articles, to identify further relevant studies which may not have been included in the initial search results. This highlighted one further article to be included in the synthesis. Exclusions based on language and relevance to PICOS were conducted through post-search screening.

Table 2

<i>Search Strategy</i>		
Methodology	Boolean Operator	Intervention
Qualitative Framework Analysis	Within category – OR Between categories - AND	Mindful* Mindfulness-based stress reduction MBSR Mindfulness-based cognitive therapy
Thematic Analysis		
Interpretative Phenomenological Analysis		
Discourse Analysis		MBCT
Content Analysis		
Grounded Theory		

Study Selection

Data management.

All abstracts were screened for relevance to the inclusion criteria and duplicates were removed. Relevant abstracts were exported to Excel where they were further screened for relevance to PICOS. Full text articles were obtained for those meeting the inclusion criteria. Final data were extracted from the articles based on relevance to the research question. Data were selected from both the results and discussion sections of the reports, as per Thomas and Harden's thematic synthesis guidance (2008). All extracted data were uploaded on to N-Vivo 11 for thematic synthesis. Included articles were evaluated for quality using the Critical Appraisal Skills Programme for qualitative research (CASP; 2017), which appraises article based on methodological rigour, credibility and relevance of findings.

Selection process.

Following the initial search, abstracts for all articles were obtained and duplicates were removed. Preliminary screening was conducted by the review author and searched for relevance to PICOS. Initially, articles were excluded based on age of population (non-adult), client group (not mental health), mindfulness intervention (not MBSR/MBCT) and methodology (not qualitative). Secondly, abstracts were reviewed for their relevance to the research question and specific mention of an aspect of interpersonal relating. If this was not present in the abstract the article was excluded. For the remaining relevant articles, the full text was obtained and further screening of the PICOS criteria was conducted to ensure appropriate inclusion. Articles not including the target

clinical population and intervention (or significantly adapted intervention) were excluded (see Figure 1 for results).

Data collection process.

The following data were extracted from potential articles and collated in a spreadsheet: Demographic information, population, setting, mindfulness intervention, qualitative methodology and outcome (themes specific to relating to others).

Data Items

All data pertained to 'relating to others' was included in the thematic synthesis, including direct quotes from participants as well as 'key concepts' and analysis from the authors detailed in the findings, as outlined in Thomas and Harden's protocol (2008).

Outcomes and Prioritisation

Only data concerning 'relating to others' were included in the thematic synthesis.

Risk of Bias in Individual Studies

Included studies were evaluated using the CASP (2017). Studies were evaluated on their adherence to these criteria and then allocated a rank based on Wyatt et al.'s (2014) system (Table 3; Appendix A). Studies were not excluded from inclusion based on their quality rating, but this will be considered in the synthesis of the data.

Data Synthesis

The data were synthesised using the three-stage protocol for thematic synthesis outlined by Thomas and Harden (2008). First, primary studies were coded line-by-line according to meaning, content and relevance to the research question. Codes were then translated across studies and organised into descriptive themes, which aimed to incorporate groups of codes into broader themes based on meaning. The final stage synthesised themes to provide an analysis that speaks to the research question and provides a “third order interpretation” (Thomas & Harden, 2008; p. 45). Initial coding was conducted by hand to enable familiarity with the data. Latterly the coding was transferred to N-Vivo which allowed for greater synthesis across papers and refinement of the derived themes.

Meta-bias

A potential risk to study selection is my own stance as a trainee clinical psychologist and mindfulness researcher with an informal practice.

There is a risk of publication bias, both in the likelihood of journals accepting studies with qualitative methodology (BPS, 2018), where the findings may not be as generalisable as quantitative methods, and the likelihood of authors to conduct and publish results which may present their intervention in a negative light.

Results

Study Selection

The initial search of the electronic databases yielded 1196 potential studies. These abstracts were screened for their relevance to the research

question (including a statement about relating to others, e.g. change in relationships with others, empathy, or group process); inclusion of an adult sample; mindfulness intervention; and English language. Most of the articles were excluded (n=934). Duplicates were removed (n=145).

Potential abstracts (n=118) were screened for their relevance to the PICOS criteria. Included studies were qualitative; clinical population, specifically people with a mental health diagnosis or accessing mental health services. Studies with a general health population, including substance misuse; or those sampling populations without a clinical diagnosis were excluded (n=80; see Figure 1). One study with a traumatic brain injury population was also excluded due to potential complexities regarding the effects of the brain injuries. Interventions other than MBSR/MBCT (with minimal adaptations) were excluded (n=23). This resulted in 14 studies meeting the inclusion criteria. Unfortunately, the full text articles were not available for two studies, and the authors did not respond to requests for the full document. Therefore 12 articles have been included in the thematic synthesis.

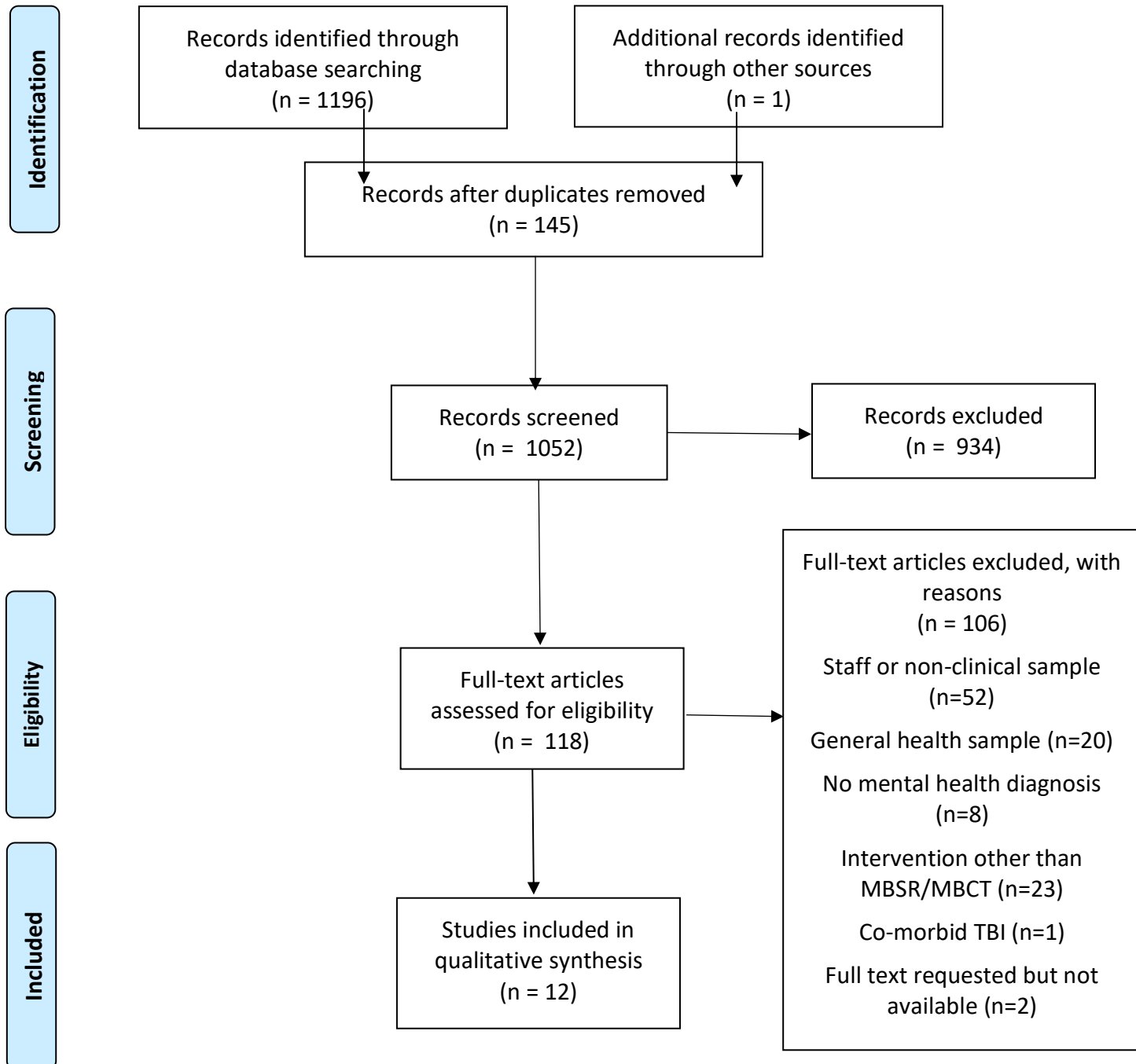


Figure 1. PRISMA (2009) flow diagram of studies.

Table 3
Characteristics of Included Studies

Study Number	Title	Authors	Year	N	Participant Diagnosis / Group	Setting	Country	Mindfulness Intervention	Analysis Method	Data collection method and time point	CASP Rating
1	Participants' experiences of mindfulness-based cognitive therapy: "It changed me in just about every way possible".	Allen, Bromley, Kuyken, & Sonnenberg.	2009	20	Recurrent depression	Primary care	UK	MBCT	Thematic analysis	Semi-structured interviews, conducted at one year post course	A
2	The experiences of parents in mindfulness-based cognitive therapy.	Bailie, Kuyken, & Sonnenberg.	2012	16	Parents with recurrent depression	Mental health	UK	MBCT	Thematic analysis	Semi-structured interviews, conducted one year post course	B
3	A qualitative analysis of beginning mindfulness experiences for women with post-traumatic stress disorder and a history of intimate partner violence.	Bermudez, Benjamin, Porter, Saunders, Myers, & Dutton.	2013	10	Women with a history of intimate partner violence and trauma	Mental health	USA	MBSR (adapted – adjustments to structure/ content to accommodate women with traumatic experiences, e.g. session length, eyes open, supplementary practices)	IPA	Semi-structured interviews conducted at four time points and a focus group (pre-course, mid-course, post-course and three months post-course)	B
4	Relating mindfully: A qualitative exploration of changes in relationships through mindfulness-based cognitive therapy.	Bihari, & Mullan.	2014	11	Recurrent depression	MBCT service	UK	MBCT	Grounded theory	Semi-structured interviews conducted within three years of course completion	B

5	The effects of mindfulness-based cognitive therapy: A qualitative approach.	Cebolla i Marti, & Barrachina.	2009	32	Anxiety and depression	Two mental health units	Tenerife	MBCT	Content analysis	Open-ended questionnaires – completed post treatment (last day of treatment) and at three months	D
6	An exploratory mixed methods study of the acceptability and effectiveness of mindfulness - based cognitive therapy for patients with active depression and anxiety in primary care.	Finucane, & Mercer.	2006	13	Recurrent depression or recurrent depression and anxiety	Primary care	UK	MBCT	Framework analysis	Semi-structured interviews conducted three months post-course	B
7	The relational effects of mindfulness training: A phenomenological study.	Gillespie.	2014	12	Various (one of couple attended MBSR)	MH	USA	MBSR (adapted – one course contained adaptations to breathing exercises and more CBT content)	IPA	Semi-structured interviews - one individual, one with partner and one together. Conducted within six months of completing the course	A
8	Both sides of the story: Exploring how improved and less-improved participants experience mindfulness-based stress reduction for social anxiety disorder.	Hjeltnes, Moltu, Schanche, Jansen, & Binder.	2018	14	Social anxiety disorder	University counselling service	Norway	MBSR (adapted – psychoeducation specific to SAD within bounds of MBSR)	Thematic analysis	Semi-structured interviews, conducted one month post-course	B

9	Mindfulness-based cognitive therapy: Primary care patients' experiences of outcomes in everyday life and relapse prevention.	Lilja, Broberg, Norlander, & Broberg.	2015	19	Recurrent depression	Primary care	Sweden	MBCT	Thematic analysis	Semi-structured interviews, conducted one year post-course	B
10	The process of engaging in mindfulness-based cognitive therapy as a partnership: A grounded theory study.	Smith, Jones, Holttum, & Griffiths.	2015	12	Partnerships where one of the couple has recurrent depression	Couples	UK	MBCT (with partners). Minor adaptations to accommodate partners, i.e. relapse work completed in partnership.	Grounded theory	Semi-structured interviews conducted between one month and 12 months post-course	B
11	The role of the teacher in mindfulness-based approaches: A qualitative study	van Aalderen, Breukers, & Reuzel, & Speckens.	2014	10	Recurrent depression	MH	Netherlands	MBCT	Thematic analysis	Semi-structured interviews with participants and mindfulness teachers and focus groups with teachers and observations of group. Conducted between 2 weeks and 2.5 years post-course	B
12	Mindfulness-based cognitive therapy for recurring depression in older people: A qualitative study.	Smith, Graham, & Senthinathan.	2007	30	Older people with recurrent depression	Older people (aged 65+)	UK	MBCT (adapted – reasonable adjustments to mindful movement)	Thematic analysis	Semi-structured interviews pre, post and at one year post-course	B

Study Characteristics

The characteristics of the individual studies can be found in table 3. Of the 12 included studies, six were based in the United Kingdom (1,2,4,6,10,12) two in the United States of America (3,7) and four in mainland Europe (5,8,9,11).

Population.

The clinical diagnoses of the participants (n=179) were predominantly recurrent depression (1,2,4,9,10,11,12), with two studies including participants with mixed anxiety and depression (5&6), one study including people with social anxiety disorder (SAD; 8), and two studies that included participants from mental health services, one of which supported women with experience of intimate partner violence and history of trauma (3), the other served a range of mental health difficulties including anxiety, depression and stress (7).

Intervention.

Nine of the studies offered MBCT as their primary intervention (1,2,4,5,6,9,10,11,12), three offered MBSR (3,7,8). Of these programmes, five were adapted: One for an older adult population (12), one for SAD (8); one included partners (10), one included specific information concerning conviviality (5) and the final was adapted for women with experience of intimate partner violence (3).

Comparator.

Three of the studies included data from another group to triangulate their data (7,10,11); these data were excluded from the study as they did not meet the PICOS criteria.

Outcomes.

All but one (5) of the studies employed semi-structured interviews as their main methodology, the remaining study used open-ended questionnaires. Two studies also conducted focus groups (3,11); however, one was conducted with a non-clinical sample (11), and as such these data were excluded. The time between the course ending and interviewing the participants ranged from one month to three years. Six of the studies used thematic analysis as their qualitative methodology (1,2,8,9,11,12), two used interpretative phenomenological analysis (3,7), two used grounded theory (4,10), one content analysis (5) and one framework analysis (6). Despite there being some concern around synthesising disparate qualitative methodologies (Noblit & Hare, 1988), Sandelowski et al., (1997) regard these concerns as unfounded and recommend that a quality review of the articles is undertaken.

Setting.

All studies were conducted in a mental health setting, three were based in primary care (1,6,9), one from a university counselling service (8) and one from an older adults' mental health service (aged 65 and over; 12).

Risk of Bias Within Studies

The CASP qualitative checklist (2017) revealed two studies were high quality with few flaws (1,7), whilst one study was rated as having significant flaws (5), all other studies were rated as having some flaws; but the credibility and dependability of the studies was unlikely to be affected. Consideration of the researcher relationship, ethical issues, and explanation of participant attrition received lower ratings across most of the studies. Due to the limitations in its quality, data from study 5 have only been included to further illustrate findings from the remaining studies. These ratings were conducted by the author and verified by another trainee psychologist (100% agreed).

Results of Individual Studies

Most of the studies (1,2,3,5,6,7,8,9,10,11) were qualitative explorations of the outcomes of MBSR/MBCT programmes. It is through this exploration that themes were identified which described change (or lack of change) within the participants' interpersonal relationships. In eight studies interpersonal change was categorised as a specific theme (1,2,3,6,8,9,10,11); in one the theme related more to the validating and normalising experience of a group-based intervention (12); and in the final study an open-ended questionnaire response considered interpersonal change (5). For these studies, the majority of the synthesised data come from these specific themes.

The remaining two studies looked specifically at interpersonal changes following mindfulness courses, one from the perspective of the participants (4), and the other including feedback from participants' intimate partners alongside that of the participants (7). All themes relevant to interpersonal change from the participants of these studies have been included in the synthesis.

The aims and outcomes of the individual studies have been summarised in table 4.

Table 4

Included Studies Aim and Outcomes

Study Number	Aims / Research Questions	Outcomes / Themes
1	How do people describe and evaluate their experience of MBCT as a treatment for recurrent depression?	Control, acceptance, relationships and struggle.
2	To examine how parents with a history of recurrent depression describe their experiences regarding their relationships with their children one year after MBCT.	(i) Emotional reactivity and regulation; (ii) empathy and acceptance; (iii) involvement; (iv) emotional availability and comfort; and (v) recognition of own needs.
3	How low-income minority women with a history of intimate partner violence experienced mindfulness training.	Struggles to practice meditation; a vision of growing and helping; personal improvements, and interpersonal improvements.
4	What are the interpersonal change processes associated with MBCT?	Core construct "relating mindfully". Findings show the interconnectedness of individual and interpersonal changes through MBCT.
5	a) To obtain the study participants' opinion of the training, b) to see whether they had noticed any change over the course of the process that more standard questionnaires could not detect, c) to find out which parts they had not liked or had not reached them.	MBCT has a good level of acceptance, and that most of the patients noticed changes in their way of thinking, feeling and in their relations with others.
6	1. Is MBCT an acceptable intervention to patients with anxiety and depression? 2. What benefit, if any, do patients derive from the mindfulness approach? 3. Do patients continue to employ mindfulness techniques to cope with adverse mental states, three months after the course has finished? 4. Does an 8-week course result in improved mood as measured on Beck Depression Inventory (BDI-II) and Beck Anxiety Inventory?	The qualitative data indicated that mindfulness training was both acceptable and beneficial to the majority of patients. For many of the participants, being in a group was an important normalising and validating experience. However, most of the group believed the course was too short and thought that some form of follow up was essential.
7	To examine the relational effects of mindfulness training when one member of a couple completed an 8-week MBSR program	Awareness of emotional reactivity; creating space and time; making different choices; and humility and moments of connection.
8	To compare the experiences of participants who reported high and low levels of symptomatic change in an open trial of MBSR for young adults with SAD	(i) Discovering agency to change or not feeling empowered through the MBSR program, and four sub-themes: (ii) Forming an active commitment or feeling ambivalence toward learning mindfulness, (iii) Engaging with others or avoiding contact with the group, (iv) Using the mindfulness exercises to approach or resigning when facing unpleasant experiences, and (v) Using the course to break interpersonal patterns or remaining stuck in everyday life.
9	To examine how patients with recurrent depression perceived the usefulness of an MBCT program for preventing relapse of depression.	Two overarching themes, "Strategies for remission" and "Personal development".

10	To develop a theory of the process of engaging in MBCT as a partnership.	The 'process of learning new mindfulness skills together'. Participants' accounts suggested that learning mindfulness skills together led to shifts in the relationship and how they managed depression.
11	To explore the views of both the participants and teachers on the role of the teacher in mindfulness-based approaches	Four overarching themes characterising the teacher-participant relationship in MBCT: embodiment, empowerment, non-reactivity and peer support.
12	To determine whether MBCT is suitable for older people, and what modifications they may require.	More awareness; more acceptance; more control; better coping; breath awareness; changes in identity; enjoyment; helpfulness of mindfulness course/practice; relaxation; calmness; getting on with others; feeling more energetic; taking things more lightly; spending less time ruminating; nipping depression in the bud; reduction of stigma; and pain.

Synthesis of Results

The data synthesis aimed to answer: How do people with a mental health diagnosis experience interpersonal change following MBSR/MBCT. Data pertaining to the research question were extracted from the articles and coded line-by-line. This first stage identified 52 potential codes. When translated across transcripts, these codes were developed into 44 descriptive themes. Finally, these themes were synthesised into an overarching theme of “connection” with four major themes (Table 5): Reconnecting with self; reconnecting with others; community; skills development. Less relevant themes were removed from the synthesis. Each major theme and sub-theme is described below with illustrative examples, additional examples are included in Appendix B.

Table 5

<i>Meta-Synthesis Themes</i>	
Theme	Sub-themes
Reconnecting with self	Changing view of self Self-acceptance Prioritising myself Choice and agency
Skills development	Improved communication Emotional literacy Ability to take a different perspective Increased ability to cope
Community	Power of community – normalising and destigmatizing Dragged along Dragged down
Reconnecting with others	Increased acceptance, empathy and compassion Improved relationships Enjoying the company of others Reintegration in society

Overarching theme: Connection.

Developing and re-establishing connections was characteristic of participants’ experience of interpersonal change, whether this be connecting

with intimate others or family; building connections within the course or connecting with themselves through skill development and improved self-awareness. Each connection appeared to strengthen others as the participants developed an improved sense of self and wellbeing.

“the more I connected with myself, the more I could connect with others and feel empowered.”

Participant; Bermundez et al., (2013).

Reconnecting with self.

One of the most significant themes emerging from the transcripts was reconnecting with the self. Participants described a developing self-acceptance that enabled them to begin reconnecting with themselves, and in turn, others.

Changing self-view.

Participants spoke of a changing self-view, from depressive, isolated and not coping, to a more self-assured view with confidence and agency. Prior to the course they described themselves as:

“struggling” and “battling with life”, as periods of exhaustion, “black days”... Putting on a “phenomenal front” in order to hide depression and coping alone in a “long, lonely struggle.”

Bihari et al., (2014).

Whilst the experience of the course, allowed this view to change and develop a new understanding of their struggles which promoted greater self-acceptance and agency:

After MBCT, participants had a more secure and stable feeling about themselves, had learnt to set their own needs before others', and had lowered their demands on themselves.

Lilja et al., (2015).

Self-acceptance.

Participants described a developing sense of self-acceptance that enabled them to begin reconnecting with themselves. The normalising group environment coupled with the mindfulness skills of intentional attention, noticing habitual patterns and responding with compassion and acceptance (MBCT.co.uk, 2018), encouraged people to cultivate a new understanding of their emotional responses and a new compassionate view of self.

Through mindful acceptance rather than avoidance of uncomfortable experience, participants felt more able to work with their fears and felt both “mentally stronger” and more confident.

Bihari et al., (2014).

Through experiencing self-acceptance, participants reported being more able to extend acceptance to other people, described in study 7 as a “shift from the intra- to inter-personal”.

Lily expressed how this intrapersonal shift from mindfulness practice “could be passed on” to interpersonal acceptance... “I think I just saw him as a little more human, as, like, a little less critical of his flaws.”

Gillespie (2014).

Prioritising myself.

As participants developed a more empowered sense of self, they began to use their agency to reaffirm their needs and prioritise themselves. For many this involved initiating conversations with those close to them and negotiating a different path forward.

“It’s not all the time and it’ll be perhaps once or twice a month when we’ll come to the point where I think ‘well I’m going to put what I need first’.”

Participant; Allen et al., (2009).

Choice and agency.

Choice and agency were present in ten of the twelve transcripts and constituted a dominant theme from the synthesis. Participants described utilising the mindfulness practices of stepping back and decentering to enable them to disengage from their automatic pilot, make choices and intentionally respond, which in turn affected their relationship with themselves and others.

“It helped me kind of slow down and... realize that I get to sometimes choose my reaction... The mindfulness is watching your reaction and maybe choosing that reaction or maybe not.”

Participant; Gillespie (2014).

The sense of empowerment that participants described experiencing through the mindfulness programmes also contributed to their wellbeing and recovery. Participants appeared to develop a more internal locus of control. They described feeling more able to take an active role in their recovery and more confident in implementing personal resources to regulate their mood.

“You are put to work. You start working on it and you have to”. “This is the opposite of the ‘garage model’ as in the medical world: you have a problem, get it fixed with medication and your problems are gone.”

Participant; van Aalderen et al., (2014).

However, this effect was not observed by all participants. Those who had benefited less from the courses, tended to locate the challenges to engagement in other people or events out of their control.

One participant had hoped meditation would provide a ‘miracle cure’ and was disappointed this had not been the case. She spoke about ongoing family problems, expressing feelings of rejection and isolation and continued to experience high levels of anxiety.

Finucane et al., (2006).

Skills development.

Skills development was evident within ten transcripts. Many participants described improvements to their communication skills, emotional literacy and ability to consider an alternative perspective; which for many resulted in a perceived increased ability to cope.

Improved communication.

Participants talked about the previous difficulties they had experienced communicating with others and being heard. Learning about communication strategies on the course, along with the mindfulness techniques enabled them to respond differently to others, as well as asserting their wants and needs.

“I’m trying to be more clear about where I’m coming from. I’m trying to be more of an advocate for myself; whereas, before, if I would hear

something I didn't like, I would just withdraw and that would be the end of the conversation. And now, I'll try to get into a conversation with her about it."

Participant; Gillespie (2014).

Assertiveness skills ranked highest in citations, from nine out of twelve articles. Linked to increased agency and choice, assertiveness skills enabled participants to communicate their needs to others and be able to say no.

"Not taking it all on" meant "allowing self the authority to say no", not being a "doormat" and recognising one's limits, which was "empowering".

Bihari et al., (2014).

Emotional literacy.

A key skill developed through the programmes was the ability to recognise, process and communicate emotional content in both themselves and others. Many stated this was internalised from the *"accepting culture of the group"* (1). One hypothesis is that mindfulness may support the development of mentalization, imagined mental states that under-pin our behaviour (Bateman & Fonagy, 2006). Being able to mentalize about one's own needs as well as the needs of others, supports both the regulation of affect and the maintenance of interpersonal relationships (Allen & Fonagy, 2006). Participants noted the mindfulness skills of being able to step back and *"be rather than do"* in supporting this.

"Before it would just be, "Oh well... never mind, come on, let's just have a kiss and a cuddle", and... "We'll get over this", but now... if I can explain to him how he is feeling... and why he is feeling this..."

Participant; Bailie et al., (2012).

Ability to take a different perspective.

This increased ability to mentalize, together with the group environment of the courses, enabled participants to develop a different perspective and “*view things from a different angle*” (1). This alternative perspective was often linked with the development of empathy and compassion for others.

Increased ability to cope.

The most reported outcome of the programmes was an increase in participants’ perceived ability to cope. This was often attributed to specific mindfulness skills and principles. The three-minute breathing space was the most mentioned of these. An increased ability to cope in adversity is linked with the development of resilience, which itself is associated with positive outcomes in both physical and mental health (Wagnild, 2009). Participants spoke of being able to utilise these techniques in their day-to-day lives to overcome challenges and manage situations.

“If these thoughts come in to my mind of a night time, I think breathing exercises... whereas before I’d be awake half the night.”

Participant; Smith et al., (2015).

Community.

The theme of community encompassed the sub-themes of normalising and destigmatising; being dragged along and being dragged down.

Power of community – normalising and destigmatizing.

People described experiencing the group as a community that enabled them to find self-acceptance, in that they were not longer alone with their

difficulties. For some, the realisation that other group members were experiencing similar difficulties helped them to normalise their experiences, for others, they realised that their situation *“hadn’t been that bad”* (12).

Experiencing mental health difficulties can be extremely isolating (Mind, 2016). Finding a sense of community within group psychological interventions can remove the stigma of diagnosis and encourage mutual support from peers (Schon, 2010; Finucane & Mercer, 2006). The sense of community was so compelling that often participants campaigned for the groups to be extended.

“I could see myself in many of the others who took the course. And that was really some of the best of it for me.”

Participant; Hjeltne et al., (2018).

Dragged along.

The theme of “being dragged along” exemplifies the motivational force that community provided which encouraged participants’ continued engagement in the course, particularly when they were struggling.

“The group gives some sort of pressure, to keep sitting and practicing.”

Participant; van Aalderen et al., (2014).

Dragged down.

For some however, the group context was too difficult, and they found themselves feeling more isolated or “dragged down” by the group. For this group of people, dis-engagement from the group processes reduced their opportunities to practice mindfulness and consequently reduced their outcomes.

“I wouldn’t say it dragged me back down, but I felt it started to almost like reawaken kind of feelings of anxiety being in close proximity to so many people and just in the group.”

Participant; Finucane et al., (2006).

Reconnecting with others.

The course environment provides an opportunity to test and model positive interactions, as participants engage with the emotional content of both themselves and others through the mindfulness practice and inquiry. Connecting and reconnecting with others appeared to arise from a grounding of reduction in mental health symptoms and a greater empathy and compassion for others. This sense of community and newly developed skills enabled participants to reconnect with friends, family and work colleagues.

Participants described “relating afresh with others”, which allowed them to “begin again” and relate without being encumbered by the baggage of the past.

Bihari et al., (2014).

Increased acceptance, empathy and compassion.

From the foundation of a more accepting self-view, participants appeared more able to extend this acceptance outwards to friends, family and others. Participants spoke of a new ability to comprehend the suffering of others and reflect on the motivations behind others’ behaviour. Although not specifically named by participants, transcripts reflected the development of compassion for others. These themes were captured in nine out of the twelve transcripts.

“Allowing people to feel what they feel... you have to respect the other person and respect what they’re feeling and who they are.”

Participant; Gillespie (2014).

This improved emotional connection with others, alongside the skills of non-judgement and disengaging from automatic responses, appeared to result in several positive outcomes related to interpersonal change.

Improved relationships.

Participants described improvements in their relationships through their ability to intentionally respond to situations, which promoted greater understanding and attunement.

“My family say I’m back to myself again, after nine years.”

Participant; Smith et al., (2007).

Enjoying the company of others.

Others described the positive reinforcement gained from rewarding interactions, which subsequently promoted further engagement

“There were just a lot more satisfying interactions.”

Participant; Gillespie (2014).

Reintegration in society.

Indeed, several participants spoke of extending this further to reintegrate themselves into society; returning to work, becoming involved in volunteering and engaging in social activities. This re-engagement in activity appeared not only to provide positive reinforcement, but also to promote wellbeing through increased confidence and self-esteem.

“I was becoming quite insular... I couldn’t be bothered to do things. Whereas this past week, I went to lunch with my friend... and that was really nice and that was quite a big thing for me.”

Participant; Smith et al., (2015).

Synthesis of Results

Each of the above themes developed the participants’ skills and experience to enable them to develop and re-establish connections with both themselves and those close to them. This synthesis also identified interactions between the themes, which created a synergistic effect to promote further development in relationships. These interactions can be summarised as such (figure 2). Attending an MBSR/MBCT course programme provided participants with an opportunity to learn new skills and develop a deeper understanding of themselves. Through these skills they fostered an improved self-view, greater self-acceptance, and a sense of self-compassion. Simultaneously, attending the course also provided opportunities for in-vivo learning, as participants practiced engaging with each other as a community. This engagement not only supported the development of empathy, as participants were exposed to the struggle of each other; it also created an environment for further personal connection as experiences were normalised and contextualised in the group. This positive learning was then extended to the wider world, providing greater opportunities for connection, learning and positive reinforcement. What is not clear from the synthesis is the temporal ordering and causation of these factors. These complex interactions suggest further investigation into the role of mindfulness-based interventions in affecting interpersonal change and the possible mechanisms by which this change is precipitated.

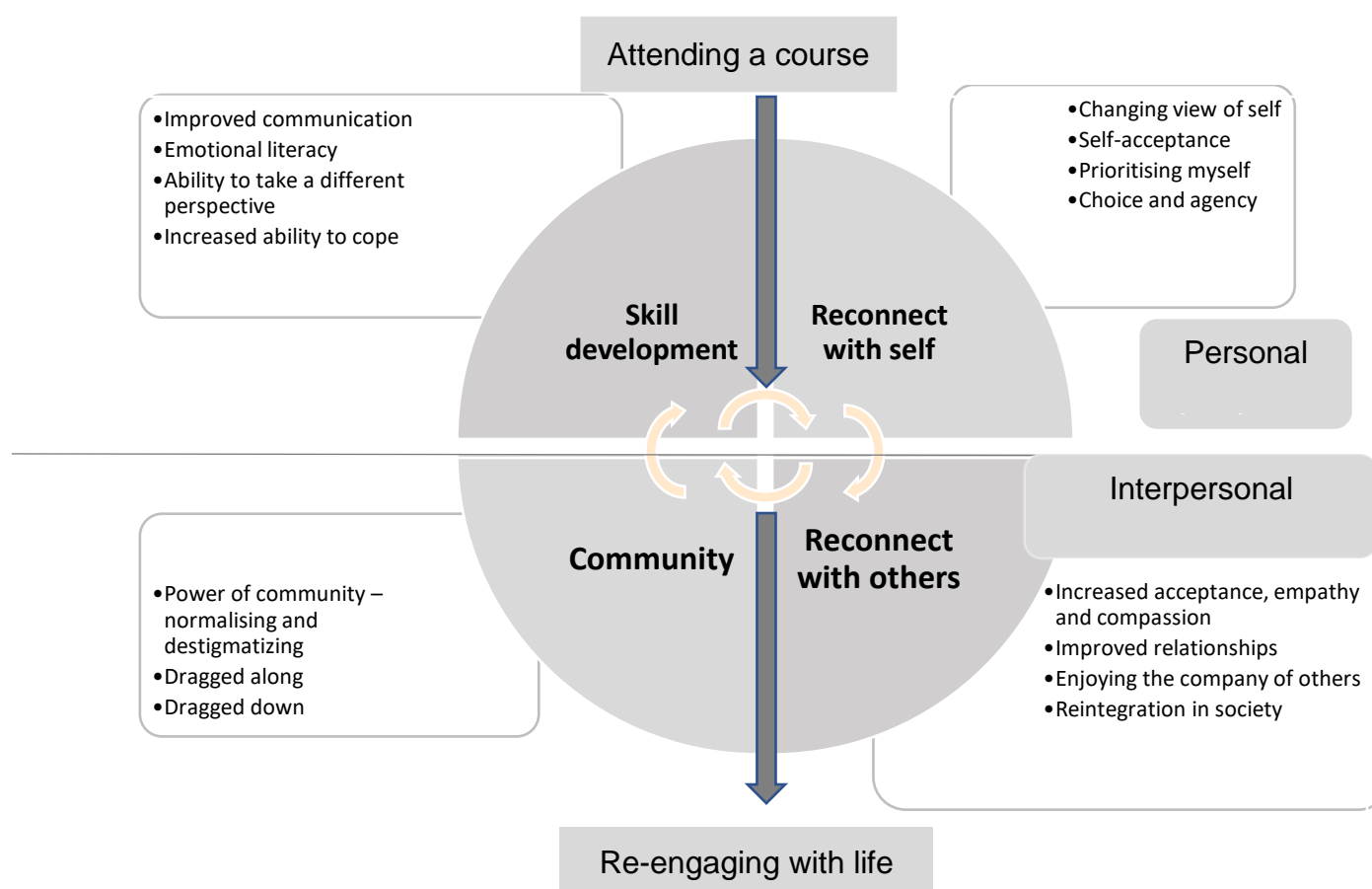


Figure 2. Interconnections between the themes.

Risk of Bias Across Studies

Most of the studies were cross-referenced across texts, which suggests that the search strategy was sufficient in including studies pertinent to the research question. Exceptions to this were those where the interpersonal theme was less significant, or the population was diverse. One study was identified through backchaining, which was not present in the original search results (12), this was due to the interpersonal outcomes not being explicitly noted in the article abstract.

It is possible that through the omission of an interpersonal theme in studies' abstracts, some relevant articles may have been missed; however, it

would be hoped that if this theme was significant within the research it would have been included in the abstract.

Discussion

Summary of Evidence

The thematic synthesis established four major themes relating to participants' experience of interpersonal change following MBSR/MBCT: 'the group as a community'; 'reconnecting with the self'; 'skill development' and 'reconnecting with others'. These themes were then further synthesised to consider the connections between the themes and the complexity of interpersonal development. The presented themes are representative of those identified within the included studies and with other mindfulness-based intervention outcome qualitative syntheses (Cairns & Murray, 2015; Malpass et al., 2012; Wyatt et al., 2014). Wyatt et al.'s, (2014) review of 15 mindfulness-based interventions, identified "normalising and the supportive process of the group" and "a sense of control and choice" and "relationship with self or others," among other significant themes experienced by participants. Similarly, Cairns et al., (2015) synthesis of MBCT participants identified themes of the "impact of the group" and "feelings towards the self" and "taking control through understanding, awareness and acceptance" in contributing to therapeutic change. Finally, Malpass et al., (2011) meta-ethnography presented a three-phase participant journey through MBCT/MBSR, exploring new understandings of the self and illness, learning and development of new skills and transforming the relationships and managing their internal experiences differently. In their

review they emphasised the significance of the group as a “safe and productive” space for participants to develop (p. 71).

From the present review, two specific findings related to the interconnections between the themes are worth highlighting: the power of the group community and the intra- to inter-personal shift.

The power of the group community as an environment for normalising, motivating and empathising was a dominant theme within the transcripts and provided the context for much of the personal and interpersonal development. This is consistent with findings from Malpass et al., (2012) who established the presence of these themes across diagnosis and mindfulness intervention. The non-specific group effects of attending psychological groups have been well studied. Yalom (1995) described several such benefits: instillation of hope, opportunity to develop understanding and experience beneficial relationships through their attendance. Furthermore, group cohesion has been linked to outcome. Imel, Baldwin, Bonus and MacCoon (2008) found that group effects accounted for 7% of the variability in General Symptom Index (GSI) scores following MBSR groups, indicating that group membership altered participants' psychological symptoms. The prominence of these findings may suggest that non-specific factors can be attributed to the success of mindfulness-based interventions, rather than specific mindfulness mechanisms (Chiesa & Serretti, 2009). There is currently much debate on this topic. Chadwick, Taylor and Abba (2005) asked participants in a mindfulness group for people with psychosis, to rank factors in terms of importance for their outcomes and found that mindfulness factors ranked higher than non-specific group factors. Whilst Williams et al., (2014) found no significant advantage of MBCT over active control interventions, suggesting that non-specific factors may be as significant

in producing outcomes as specific mindfulness skills. Consequently, Petrik and Cronin (2014) suggest that future research designs should aim to differentiate between mindfulness techniques and assess whether these are the active domain within the treatment, as opposed to the other therapeutic interventions, (i.e. psychoeducation or cognitive therapy elements) or non-specific group effects.

For some, however, attending a group programme was a challenging event, exposing feelings of vulnerability, anxiety and dis-ease, resulting in poor engagement and less beneficial outcomes. This effect was identified by Holsting, Pedersen, Rask, Frostholm and Schröder (2017), who studied negative effects following group therapy for people with functional somatic syndromes. They observed that some participants felt overwhelmed by the experiences of others in the group, resulting in negative outcomes. The potential for negative group experiences for some clients, indicates that offering a range of treatment options may be preferable.

Another significant interconnection identified was the link between personal and interpersonal change. Gillespie's (7) phrasing of the '*intra- to inter-personal shift*' typifies the direction of change acknowledged in many of the transcripts. Gillespie talks of an intra-personal attunement which is cultivated in mindfulness and then extended through experimentation to others. This is based on the theory developed by Siegal (2007) that "mindfulness awareness is a form of intra-personal attunement" (p.1). He argues that through intra-personal attunement a person can develop a secure attachment to themselves, which in turn promotes the possibility of developing more effective interpersonal relationships with others. However, this relationship is reciprocal, as Gilbert et al., (2012) argue that it is only from a secure attachment, that a

person can develop the capacity for self-reflection, emotional awareness and tolerance. One possible mechanism for this intra- to inter-personal development is through the increased capacity to mentalise with both themselves and others. As previously mentioned, mentalising supports both personal and interpersonal development, and has been linked with the ability to empathise with others (Hooker, Verosky, Germine, Knight, & D'Esposito, 2008). To date, little research has been conducted as to the role of mindfulness in fostering mentalisation (Davis & Hayes, 2011); however, Wallin (2007) suggests that the receptivity created by mindfulness enables mentalisation to occur. Future research would benefit from exploring this link further.

Clinical Implications

There are several important clinical implications apparent from these findings. The first relates to the significance of a group intervention, both in the opportunity to develop and practice new skills and the normalising effect of the group context. Although not suited to all individuals, it appeared that the group format enabled participants access to resources they would otherwise not have had accessed in individual sessions, i.e. others' experience. This emphasises the significance of group interventions, suggesting that they should be considered for people experiencing interpersonal difficulties. Understandably, this population may express some resistance to a group provision; however, these results should contribute towards a therapeutic rationale. Screening participants for those most likely to benefit from attending a group may also improve their outcome and experience.

A further implication of this review concerns the relationship between intra and inter-personal change and the potential link between mindfulness and improved mentalizing. This may contribute further to our understanding of how interpersonal difficulties develop and the processes that are integral to resolving them. Further research is needed in this area alongside greater exploration of the active mechanisms of mindfulness.

Limitations

It is acknowledged that this review would have benefitted from co-rating of the thematic synthesis to ensure validity of the constructs; however, due to time constraints and the author's personal circumstances this was not possible. Future studies would be encouraged to test the hypothesised themes and mechanisms from this synthesis.

A further limitation may be the limited inclusion of studies which did not find evidence for interpersonal change. The lack of comment on interpersonal change within abstracts, may indicate that either no change in interpersonal relationships was found, or a negative change was observed. Only one study (8) specifically sought responses from low responders and were included in the review; however, these were in the minority. Further research should aim to explore these effects more specifically.

A final potential limitation lies in the process of qualitative syntheses itself. Sandelowski and Barraso (2007) argue that any qualitative synthesis takes the material away from the individual experience through the manipulation and selection of data by the primary authors, further selection and synthesis of the data through the process of systematic review risks additional

misinterpretation. Being cognisant of this, where possible I have attempted to use direct participant quotes, to remain as close to the original data as possible.

Conclusions

This systematic review aimed to investigate how people with a mental health diagnosis experience interpersonal change following MBSR/MBCT interventions. The results suggest that although MBSR/MBCT interventions do not specifically aim to target interpersonal relationships, participants experience considerable improvement post-course. The meta-synthesis identified an overall theme of connection, relating to both the self and others, with a complex interaction between themes emphasising the importance of the group context and intra-personal development as considerable factors in affecting interpersonal change. Further research into the active mechanisms of MBSR/MBCT in relation to interpersonal change is indicated.

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Appendix A
CASP Analysis Rating (Wyatt, Harper, & Weatherhead, 2014)

Table A1.

CASP analysis rating (Wyatt, Harper, & Weatherhead, 2014)

Ranking	Rating Description
A	No or few flaws Credibility and dependability of findings deemed to be high
B	Some flaws Credibility and dependability unlikely to be affected
C	Some flaws Credibility and dependability may be affected
D	Significant flaws Credibility and dependability likely to have been affected

Appendix B

Meta-Synthesis Themes Additional Quotes

Table A2

Meta-Synthesis Themes Additional Quotes

Theme	Sub-themes	Additional Quotes
Reconnecting with self	Changing view of self	<i>‘Recognition of the group gives trust and makes you feel at ease. You feel understood and free from prejudice by the society. So much understanding is a new experience’.</i> Participant; 11.
	Self-acceptance	<i>“Accepting being different from others, finding my own values and feelings, feeling more self-compassionate, accepting liking myself. Good and bad feelings.”</i> Participant; 3. <i>“42.8% [of respondents] said that they were surer and more accepting of themselves”</i> Authors; 5.
	Prioritising myself	<i>At the beginning of the study, the women voiced having poor self-worth in many ways, such as having a sense of low accomplishment or failure, self-judgment and disappointment, lack of motivation, shame, guilt and not trusting themselves. At the same time, they told us that they wished to become more self-accepting and appreciative. For</i>

		<p><i>some, participating in the group was a first experience of dedicating time to personal growth.</i></p> <p><i>Author; 3.</i></p>
	Choice and agency	<p><i>"If I could have challenged myself more to speak in front of the others, it probably might have been helpful, but I was not ready for that. I do not think it would have helped [if the teachers had encouraged him to enter social situations]. I have to do it completely at my own pace when I am ready. And I do not think that I am ready."</i></p> <p><i>Participant; 8.</i></p>
Skills development	Improved communication	<p><i>"It is just about being heard, not about wanting to be right. I just want to acknowledge that I am here. that I am part of the grains of sand on the beach."</i></p> <p><i>Participant; 3.</i></p> <p><i>"There has been a difference in the way, that I have responded to ... his attitude ... I've been ... firm and pretty forthright about it, but, not in an aggressive, irritable kind of a way ... and I think he's appreciated that ... and he's actually responded pretty well."</i></p> <p><i>Bailie (2012)</i></p>
Community of the group	Power of community – normalising and destigmatizing	<p><i>"If we even said ...monthly or quarterly something like that whereby you have still got this link and you would still have each other. It's like you had this sort of support if you like</i></p>

and then it's just gone. So I think personally a follow up is a must"

Participant; 6.

Dragged down

"...I was really shocked cos I didn't realise that was how I was...[afraid of criticism and rejection] I shared it in the group, which was really good, but...there are too many people, you can't go into your personal thing and I could have really done with a debrief then..."

Participant; 4.

Reconnecting with others

Increased acceptance, empathy and compassion

"I've gained from the course, a little bit of understanding and a little bit of somewhere I can come to listen to what has been going on' (Jane) and a more 'sympathetic attitude' (Sam) towards suffering."

Participant; 10.

"I am a bit over fussy about ... putting things away and tidying up and ... to be totally honest, with two lads, of their ages, they don't do that kind of thing ... and I've been more inclined to give ... on all these kind of things."

Participant; 4.

Enjoying the company of others

"now I find people are giving me joy"

Participant; 4.

Mechanism for Change Non-specific effects

“A third possibility is that the improvements in mood found in the present study were not specifically related to the MBCT course itself but were due to a 'regression towards the mean' phenomenon or/ and non -specific group effects.”

Author; 6.

Mindfulness mechanisms

“It is interesting that in participants’ accounts, the development of awareness, acceptance and behavioural change has a basis in both specific MBCT techniques (i.e. the mindfulness practice) and non-specific factors (i.e. group processes).”

Author; 1.

“This seemed to be related to increased empathy and acceptance towards themselves and their children. This ability to adopt a broader perspective seemed to evolve from different, sometimes overlapping, mechanisms, including reduced child- and self-blame, acceptance, mindfulness practice and the understanding that “thoughts are not facts”.”

Intrapersonal to interpersonal shift

Author; 2.

“In reality, it is a case of taking the Mindfulness ability from the intrapersonal to the interpersonal realm, using the mechanism learned during meditation not in the relationship with oneself, but in the relationship with others.”

Author; 5.



SCHOOL OF PSYCHOLOGY
DOCTORATE IN CLINICAL PSYCHOLOGY

EMPIRICAL PAPER

**The role of self-compassion in mood repair for people with
recurrent depression with and without experience of
mindfulness.**

Trainee Name: **Gemma Palmer**

Primary Research Supervisor: **Dr Janet Smithson**

Senior Lecturer in Psychology

Secondary Research Supervisor: **Dr Anke Karl**

Senior Lecturer in Clinical Psychology

Target Journal: Behaviour Research and Therapy

Word Count: 7991 words (excluding abstract, table of
contents, list of figures, references, footnotes,
appendices)

**Submitted in partial fulfilment of requirements for the Doctorate Degree in
Clinical Psychology, University of Exeter**

Abstract

Mindfulness-based cognitive therapy (MBCT) have been shown to be effective in reducing the impact of cognitive reactivity (CR) and improving outcomes for people with recurrent depression. It has been proposed that this effect may be mediated by the cultivation of self-compassion; however, there is limited research into this mechanism. This study aimed to explore the lived experience of a sad mood induction and compassionate repair in people with currently remitted recurrent depression, with and without experience of MBCT. Sixteen participants were recruited (10 MBCT, six non-MBCT). Participants underwent a two-phase mood manipulation, sad mood induction and loving-kindness meditation (directed to a loved one and the self) and completed self-report measures before and after each task. Following this, participants engaged in a semi-structured interview exploring their experiences. The results showed both mood manipulations were successful, and mood repair was apparent within all but one of the participants. The interviews were analysed using thematic analysis, identifying six key themes: vulnerability versus tolerance of depression; immersion versus transience of cognitive and emotional reactivity; avoidance versus tolerance of compassion; self-criticism versus self-acceptance; locus of control and mechanisms of repair. No differences were observed between the two groups in their qualitative or quantitative responses to the mood manipulations; however, those in the MBCT group with a greater level of current MBCT practice, appeared more able to transcend negative thinking and utilise the Loving Kindness Meditation (LKM) more effectively for both themselves and others. The results are discussed in relation to study limitations and their implication to clinical practice.

Keywords: Qualitative Research; Mindfulness; Compassion; Depression;
Cognitive Reactivity

Introduction

Depression and Relapse

Depression is currently the single largest contributor to global disability (WHO, 2017), with between 2 and 15% lifetime prevalence (Moussavi et al., 2007). As up to 80% of those diagnosed, experience more than one episode (Kessler, 2002), risk factors relating to relapse are of great significance.

One possible risk factor is through the reactivation of and the inability to disengage from negative thinking (e.g. “I am worthless”) when the individual experiences a negative mood state, a process called cognitive reactivity (CR; Raes, Dewulf, Van Heeringen, & Williams, 2009). Raes et al., (2009) posit that patterns of negative thinking are laid down in earlier depressive episodes and later reactivated when the person feels low. The more depressive episodes a person experiences, the more sensitive they become to the activation of these patterns (Lui & Alloy, 2010). As such, higher levels of CR have been linked to relapse and reoccurrence in depression (Segal et al., 2006).

Mindfulness-based cognitive therapy (MBCT)

MBCT was developed to target CR (Segal, Williams, & Teasdale, 2002), aiming to interrupt the process through teaching participants to de-centre from negative thinking, choosing instead to notice and respond with acceptance and self-compassion (Kuyken et al., 2010). Several studies have illustrated the potential link between the development of mindfulness skills and a reduction in CR (Kuyken et al., 2008; Piet & Hougaard, 2011); as well as its efficacy in reducing recurrent depressive symptoms and relapse.

One possible mechanism through which this dissociation occurs is through the cultivation of self-compassion. Kuyken et al. (2010) explored the

role of self-compassion in mediating the effect of MBCT on depressive symptoms. They proposed that not only did MBCT change the relationship between CR and outcome, this change appeared to be associated with the development of self-compassion.

Self-compassion

Self-compassion, although a relatively recent concept to Western psychological sciences, has a long history in Eastern cultures, philosophies and religions (Neff, 2003). It has been defined by Neff (2003) as “being touched by and open to one’s own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one’s suffering and to heal oneself with kindness” (p.87). As it is relatively new, there is limited research into the possible mechanisms of self-compassion. Gilbert (2014) hypothesises that developing self-compassion can deactivate the brain's threat system and activate its self-soothing system, providing a protective barrier against depressive symptoms, potentially altering the effects of CR. Further, Leary, Tate, Adams, Allen and Hancock (2007) posit that self-compassion protects against negative self-bias in distressing situations.

The presence of self-compassion has been linked to more adaptive psychological functioning, emotion regulation and improved mental health (Neff, Rude, & Kirkpatrick, 2007; MacBeth & Gumley, 2012). Diedrich, Grant, Hofmann, Hiller and Berking (2014) reported that following induced low mood, a brief self-compassion task performed significantly better than other emotion regulation strategies in repairing the mood and countering self-criticism of more severely depressed people. This suggests that even brief, laboratory-induced, self-compassion may be effective in repairing low mood.

One way of cultivating self-compassion is to practice Loving-Kindness Meditation (LKM).

Loving-Kindness Meditation

LKM is a brief meditation aimed at developing "an affective state of unconditional kindness towards all people" (Hoffman, Grossman, & Hinton, 2011, p. 1127). The participant directs compassion to the self and others. It has been shown to increase compassion (Weibel, 2007), connectedness (Hutcherson, Seppala, & Gross, 2008), and reduce rumination and depressive symptoms (Hoffman et al., 2011). Further, these effects have been observed even within brief practices (Hutcherson et al., 2008).

Fredrickson, Cohn, Coffey, Pek, and Finkel (2008) propose that improved outcomes following LKM are due to the incremental increase of positive emotions cultivated during meditation. These positive feelings were linked to increases in mindfulness, self-acceptance and positive relations to others, which in turn improved satisfaction with life and reduced depressive symptoms. Furthermore, they noticed that although participants experienced immediate positive effects, a dose effect was also present, proposing that greater practice increased the experience of positive emotions over time.

Current Study

In summary, MBCT aims to interfere with the process of CR, which is purported to be responsible for depressive relapse. To date, this effect has predominantly been assessed through self-report of dysfunctional thinking following mood inductions (Segal et al., 2006). However, these studies are susceptible to demand characteristics and questionable measure validity which

may not capture all relevant experiences (Figueroa et al., 2018; Barnard & Curry, 2011).

CR interference is possibly mediated by the cultivation of self-compassion, although further research into the mechanisms is required. Self-compassion promotes positive emotions and emotion regulation, which appear to counter the effects of negative self-judgement and CR. To date however, this effect has only been studied quantitatively in a handful of studies.

LKM had been shown to be effective both in improving wellbeing and increasing self-compassion, with a suggestion that this effect may a) be immediate (Hutcherson et al., 2008; Fredrickson et al., 2008); and b) increase with meditation experience (Fredrickson et al., 2008). However, very few studies have considered its use in brief mood repair.

Therefore, this study employed a mixed-methods design to explore the experiences of people with recurrent depression, in a sad mood induction and compassionate repair (using LKM). To establish if this process is mediated by mindfulness, people with MBCT experience will be compared with those without. The research will take a predominantly qualitative design, using quantitative data to provide a manipulation check and further validate findings. It is proposed that utilising qualitative analysis will illuminate our understanding of the individual's experience of each stage of the mood induction and repair process (Williams, McManus, Muse, & Williams, 2011), including the potential mechanisms of change in mindfulness (Allen, Bromley, Kuyken, & Sonnenberg, 2009).

Research Questions

- How successful were the mood provocations at temporarily reducing and repairing mood?
- How do experiences of an MBCT intervention inform the way in which people respond to sad mood and compassion repair inductions?
- Does this vary according to experience of MBCT?

Methodology

Design

This study employed a mixed-methods design to assess participants' ability to repair induced sad mood, in those with and without experience of MBCT, extending a previous study conducted by Kuyken et al., (2010). The design protocol was developed in collaboration with Dr Hans Kirschner, who conducted a concurrent enquiry into participants' psycho-physiological responses. The quantitative arm utilised standardised self-report measures to evaluate the validity of the two mood manipulations, whilst the qualitative arm employed semi-structured interviews with participants' post-inductions to gather a richer understanding of these phenomena.

Participants

Participants were recruited through the AccEPT clinic, Lived Experience Group (LEG) and research website at the University of Exeter. Inclusion criteria were: Aged ≥ 18 years; history of recurrent depression (>3 episodes); currently well (HAM-D <10 ; Hamilton, 1980). Participants were recruited to two groups, those who had completed a MBCT course (>5 sessions), and those who had not. 16 participants were included in the current study (10 MBCT, six non-

MBCT). Exclusion criteria were: Current depression (HAM-D score ≥ 10); risk to self or others; current substance misuse, psychosis or other serious mental health condition; history of brain damage; current antisocial behaviour; <18 years; non-English speaking (funds unavailable).

Four participants were excluded from the study (two did not have recurrent depression; two were currently depressed). One (L) declined to participate in the qualitative interview due to time. Demographic information is presented in Table 1.

Table 1

Demographic Information for Participants

Participant No.	Group	Sex	Age Range	No. of Depressive Episodes	Age of Onset	Antidepressant Medication
A	Non-MBCT	F	<20	3+	Child	Yes
B	Non-MBCT	F	50-59	3+	Teens	No
C	Non-MBCT	F	50-59	3+	40s	No
D	MBCT	M	60-69	10+	Teens	No
E	Non-MBCT	F	20-29	10+	Child	Yes
F	MBCT	F	70-79	20+	40s	Yes
G	MBCT	F	50-59	3+	20s	No
H	MBCT	F	50-59	4+	30s	No
I	MBCT	M	50-59	20+	20s	No
J	MBCT	F	30-39	4	Teens	No
K	MBCT	M	60-69	5+	40s	No
L*	MBCT	F	50-59	3+	N/A	No
M	Non-MBCT	F	40-49	3+	Adult	Yes
N	MBCT	F	70-79	3+	Adult	Yes
O	Non-MBCT	F	50-59	3+	Teens	No
P	MBCT	F	60-69	10+	Adult	Yes

Notes. * Quantitative information only

Measures and Materials

Quantitative measures.

Telephone screening (Appendix B).

Prior to attending the experiment participants completed a brief telephone screening to assess their suitability to participate, including the HAM-D, opportunity to ask questions and obtain verbal consent.

Hamilton Rating Scale for Depression score (HAM-D; Appendix C).

The HAM-D is a 17-item scale which measures the symptoms of depression. Higher scores indicate greater severity of depression. A score of ≥ 10 , indicated the presence of current depression and, to limit risk and ensure participant welfare, participants were excluded. The measure has been shown to have good validity (Hamilton, 2000) and adequate reliability ($\alpha=0.83$; Bagby, Ryder, Schuller, & Marshall, 2004).

Initial structured interview (Appendix D).

A brief structured interview was conducted on arrival to gather demographic information, depression history, current medication and experience and current practice of MBCT.

Structured clinical interview for DSM Disorders (SCID-I; First, Spitzer, Gibbon, & Williams, 2002).

The SCID-I is a semi-structured interview used to determine the presence or lifetime presence of a psychiatric disorder as defined by the DSM-IV. It has demonstrated good reliability ($k=0.60-1.0$), and superior validity over standard clinical interviews (Glasofer Brown, & Riegel, 2015).

The SCID-I was administered to establish any current depression or other major mental health diagnosis. If present, this prompted exclusion and signposting to additional support.

Self-report measures (Appendices E,F,G,H,I).

Five self-report measures were administered. State measures were collected throughout the mood induction and repair sequence for a manipulation check. Trait measures assessed self-compassion, self-criticism and depression severity differences between groups.

State measures.

Dysfunctional attitude scale, versions A and B (DAS; Weissman & Beck, 1978). This 40-item measure assesses dysfunctional thinking commonly present in depression, often used in priming studies as a measure of CR (Scher, Ingram, & Segal, 2005). Participants rate their level of agreement on a 7-point Likert scale. Higher scores indicate more dysfunctional attitudes endorsed. The measure holds good validity and reliability ($\alpha=0.86$; de Graaf, Roelofs, & Huibers, 2009). To equate DAS-A and DAS-B, the scores were transformed, using the formula provided by Weissman (1979; Appendix J).

Depressed states checklist (DSC; Teasdale & Cox, 2001). The DSC was developed to assess cognitive vulnerability to depression. 28 affective and self-devaluative words e.g. "Failure", are endorsed on a four-point scale from "not at all" to "very or extremely". Higher scores are reflective of greater vulnerability for depression. The scale has been evaluated as having good internal consistency and validity ($\alpha=0.93$, Teasdale et al., 2001).

Trait measures.

Self-compassion scale (SCS; Neff, 2003). This 26-item measure reports against six elements of self-compassion. Participants report on a 5-point Likert scale how they act towards themselves in difficult times. Higher scores indicate higher levels of self-compassion. The measure has been shown to have good reliability and validity ($\alpha=0.86$; Neff, 2003).

Forms of self-criticising/attacking and self-reassuring scale (FSCRS; Gilbert, Clarke, Hempel, Miles, & Irons, 2004). This 22-item self-report measure evaluates self-criticism and the ability to self-assure when things go wrong. Participants rate items on a 5-point Likert scale. Items are classified into sub-scales: inadequate self, reassured self and hated self. Higher scores indicate greater endorsement in each sub-scale. The measure has been shown to have good internal validity ($\alpha=0.81=0.87$; Gilbert et al., 2004).

Beck depression inventory (BDI-II; Beck, Steer, & Brown, 1996).

Participants rate symptoms of depression over the past two weeks using 21 items, on a four-point scale. Higher scores indicate greater severity of depression. The BDI-II has been shown to have high levels of internal consistency ($\alpha=0.90$; Beck, Steer, Ball, & Ranieri, 1996).

Visual analogue scales (VAS; Appendix K).

A purpose-designed 11-item scale (Kirschner, 2016) asked participants to rate their feelings in the moment following the sad mood and repair, to evaluate the effectiveness of the mood induction. The scales of interest in this

study were the self-compassion (items 5 & 11; $\alpha=0.73$, Kirschner, 2016) and self-criticism scales (item 3).

Qualitative interview (Appendix L).

A semi-structured interview schedule was designed to explore the participants' experience of both the sad mood and loving-kindness task. Questions were open and reflective, prompting participants to pay attention to embodied experiences, cognitions and emotions throughout both tasks. The interview schedule allowed for consistency across participants by providing a loose structure and specific conversation topics, whilst being flexible to accommodate individual differences. Participants were asked broad open questions initially, (i.e tell me about your experience of this task), and prompts were provided to ensure all aspects of the experience were considered. To reduce experimenter bias, I specifically refrained from using the words "compassion" or "repair" unless this was otherwise suggested by participants. The interview schedule was piloted to ensure appropriate language, tone, openness and flexibility.

Procedure (Figure 1)

Ethical approval.

This research was part of an existing study with ethical approval from both NHS National Research Ethics Service and the University of Exeter School of Psychology Ethics Committee. Amendments to these approvals were sought to include myself and the purpose-designed interview schedule (Appendix M, N, O).

Recruitment procedure and screening.

Study information was sent to members of the AccEPT and LEG groups who had previously given their consent to be contacted regarding research participation (Appendix P,Q,R) and published on the University of Exeter research web-pages. Interested participants were contacted to complete the telephone screening.

Experimental phase.

Pre-mood induction. After informed consent was obtained, the participants engaged in a brief baseline assessment to collect demographic information, clinical diagnoses (SCID-I) and trait measures: SCS, FSCRS and BDI-II.

Participants completed the baseline psycho-physiology measures (HRV, EEG and skin conductivity) whilst engaging in a neutral task (i.e. opening and closing eyes on cue); and the first of the state measures (DAS-A; DSC) and VAS.

Phase 1. Participants underwent the sad mood induction. To ensure the wellbeing of the participants and assure the fidelity of the mood induction; a previously tested protocol was employed (see Kuyken et al., 2010). Participants listened to a half-mastered recording of Prokofiev's "Russia under the Mongolian Yoke", whilst recalling a sad memory, for eight-minutes (full instructions, appendix S). Participants completed the second set of measures (DSC; VAS) whilst continuing to listen to the music.

Phase 2. Participants engaged in a twelve-minute guided LKM, modified to focus first on a loved one before turning attention to oneself (Kirschner, 2016; Appendix T). Participants completed the final set of measures, (DAS-B; DSC; VAS).

Interview phase. Participants were invited to engage in the semi-structured interview (approx. 30-45 mins) exploring their personal experience of the two mood tasks and reflecting on any process of mood repair that may have occurred.

Debriefing. Participants engaged in a short debrief and mood check. Participants were offered the opportunity to engage in a mood-neutralising task (8 mins; Nolen-Hoeksema & Morrow, 1993), widely used in experimental studies involving negative mood induction (Appendix U).

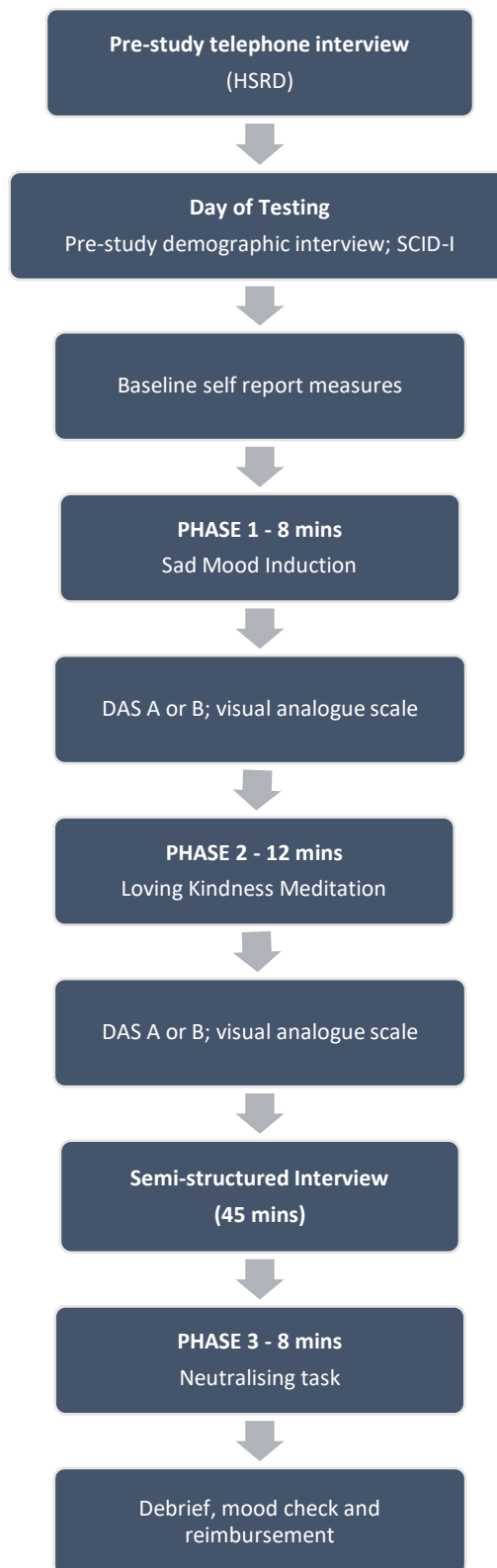


Figure 1. Empirical study protocol.

Data Analysis Strategy

Quantitative data.

The state measures (BDI-II, SCS and FSCRS) were analysed using Mann-Whitney U tests to assess any differences between the two groups.

The trait measures (DSC, DAS-A&B & VAS) were employed in a repeated-measures design to validate the mood induction and triangulate the findings from the qualitative interviews regarding presence of mood repair. Due to small sample size inferential statistics were not appropriate, therefore the DAS and DSC were evaluated using the reliable change index (RCI; Jacobson, Follette, & Revenstorf, 1984). The RCI, was developed to determine whether individual change is considered statistically reliable and is suitable for small sample sizes. It has been used to track change between tasks (Zarah & Hedge, 2010) and between groups (Barker-Collo & Purdy, 2013), making it suitable for our purposes. The VAS is a non-standard measure, therefore RCI would not be appropriate. As such, selected scales will be presented graphically.

If the sad-mood induction is successful it would be expected that dysfunctional thinking and depressive symptoms would increase, as indicated by an increase in scores on the DAS, DSC and VAS self-criticism scale; alongside a reduction in scores on the VAS self-compassion scale.

If the LKM repair is successful it would be predicted that scores would return to baseline or improve (reduction in DAS, DSC, VAS self-criticism; increase in VAS self-compassion).

Qualitative data.

The qualitative data were analysed using thematic analysis (TA) as it offers an accessible, flexible approach which is not tied to any particular epistemological position. TA allows for both inductive and theory-driven analysis (Braun & Clarke, 2006), particularly suited to a mixed-method design (Allen et al., 2009; Braun & Clarke, 2013).

The process of analysis followed the protocol developed by Braun and Clarke (2006). Although Braun and Clarke's method is most often used in social constructionist designs, it has been appropriately used in essentialist/realistic studies, for example Moller, Timms and Alilovic (2009). Interviews were transcribed verbatim and anonymised. The transcripts were read and re-read to ensure immersion in the data, taking note of points of interest to create codes relating to the research questions ("complete coding"). Following this, I looked for patterns across transcripts to identify themes, which were then amalgamated to produce a thematic map of provisional themes and sub-themes. These were reviewed in a recursive process, to define the themes. Less significant themes were discarded.

To ensure credibility and validity, themes were checked by other trainees to ensure fidelity to the dataset. Where the researchers did not agree initially, these themes were discussed, and a joint understanding of the theme was presented.

Reflexivity

I am a trainee clinical psychologist, conducting this study in the context of my major research project. I have attended and facilitated several 'introduction

to mindfulness' courses and have completed training on compassion-focussed therapy. I have an informal mindfulness and compassion-focussed practice. The following analysis should be considered within this personal context, and my perspective from an essentialist/realistic epistemological position.

Results

Quantitative Data

Group characteristics.

The characteristics of the MBCT and non-MBCT groups are provided in Table 2. Mann-Whitney U tests for the trait measures did not indicate any significance differences between groups ($p>0.1$).

Table 2

MBCT and Non-MBCT Group Characteristics

		MBCT (N=10) Median (Range)	Non-MBCT (N=6) Median (Range)
Sex		3 male, 7 female	6 female
Age		60 (38-76)	50 (19-53)
No. of depressive episodes (range)		3 - 20+	3 - 10+
Age of onset (range)		Teens - Forties	Nine - 43
HAM-D		3.0 (2-6)	3.0 (2-5)
FSCRS	Inadequate	11.5 (4-21)	22.5 (9-32) ¹
	Reassured	18.0 (9-32)	15.0 (9-19)
	Hated	0.5 (0-5)	5.0 (0-11)
SCS	Self-Kindness	10.0 (5-22) ²	11.5 (9-14) ⁴
	Self-Judgement	14.0 (9-23) ³	12.0 (8-22)
	Common Humanity	9.5 (4-16)	13.0 (9-15)
	Isolation	11.0 (5-18)	9.5 (8-18)
	Mindfulness	10.0 (7-19)	12.0 (8-14)
	Over Identification	10.0 (8-20)	10.5 (7-17)
	Total	63.0 (42-118)	69 (54-94)
BDI		5.0 (2-19)	8.0 (1-15) ⁵

Notes. ¹ N=3 (for all FSCRS scales). ² N=9 (for this subscale). ³ N=9 (for this subscale). ⁴ N=4 (for all SCS scales). ⁵ N=2.

There was considerable heterogeneity within both cohorts regarding participants' experience and practice of mindfulness (Table 3). Several participants in the non-MBCT group had prior experience of meditation; furthermore, several of the MBCT group had lapsed in their mindfulness practice.

For the purposes of this study, greater experience of MBCT is operationalised as having attended an MBCT course and engaging in regular MBCT practice (≥ 3 practices per week).

Table 3

MBCT and Mindfulness Experience of Participants

ID	Group	No. of practices in a week	Body scan	Sitting meditation	Breathing space	Mindful walking	Mindful movement/ yoga	Reunion Attendance	Course Date	Additional mindfulness experience
A	NON	-	-					-	-	Started mindfulness course that day Does yoga several times a week Attends Reiki and yoga Attends meditation class weekly
B	NON	-	-					-	-	
C	NON	-	-					-	-	
D	MBCT	27	X	X	X	X	X	Yes–All	Summer 2015	
E	NON	-	X	X	X	X		-	-	
F	MBCT	22						Yes–All but one	Summer 2015	
G	MBCT	<1			X			No	Summer 2015	
H	MBCT	<2			X	X		No	May 2016	
I	MBCT	<2	X					No	January 2016	
J	MBCT	<1	X					No	Unknown	
K	MBCT	<2		X	X			Yes–Some	Summer 2015	
L*	MBCT	14	X	X	X	X	X	Yes–1	January 2016	
M	NON	-	-					-	-	
N	MBCT	3	X			X		Yes–Regular	December 2015	
O	NON	-	-					-	-	
P	MBCT		X	X	X	X	X	Yes–Regular	January 2016	

Note. Number of practices represents the total number of practices conducted a week, regardless of type, therefore daily practice = 7 practices.

How successful were the mood provocations at temporarily reducing and repairing mood?

The RCI for the DAS-A&B and DSC were evaluated alongside the change in self-compassion and self-criticism scales of the VAS (Table 4, Figure 2,3 & Appendix V). The results indicate that post-sad mood induction most people endorsed more negative thinking and depressive symptoms, with reliable deterioration being met for seven participants. Both groups also experienced a reduction in self-compassion and an increase in self-criticism. This suggests that the sad mood provocation was successful.

Post-LKM, 15 participants experienced a reduction in DAS, DSC and self-criticism scores and an increase in self-compassion between baseline and post-sad mood task. These results suggest that some degree of mood repair had occurred during the LKM phase.

Table 4

Mean DSC and DAS Scores by Group and Time

		MBCT (n=10)	Non-MBCT (n=6)	Total (n=16)
DSC	Baseline	5.70	40.00	18.56
	Sad Mood	29.80	44.00	35.13
	LKM	12.30	26.00	17.44
DAS	Baseline (DAS-A)	113.65	123.07	117.18
	LKM (DAS-B)	107.60	123.33	113.50

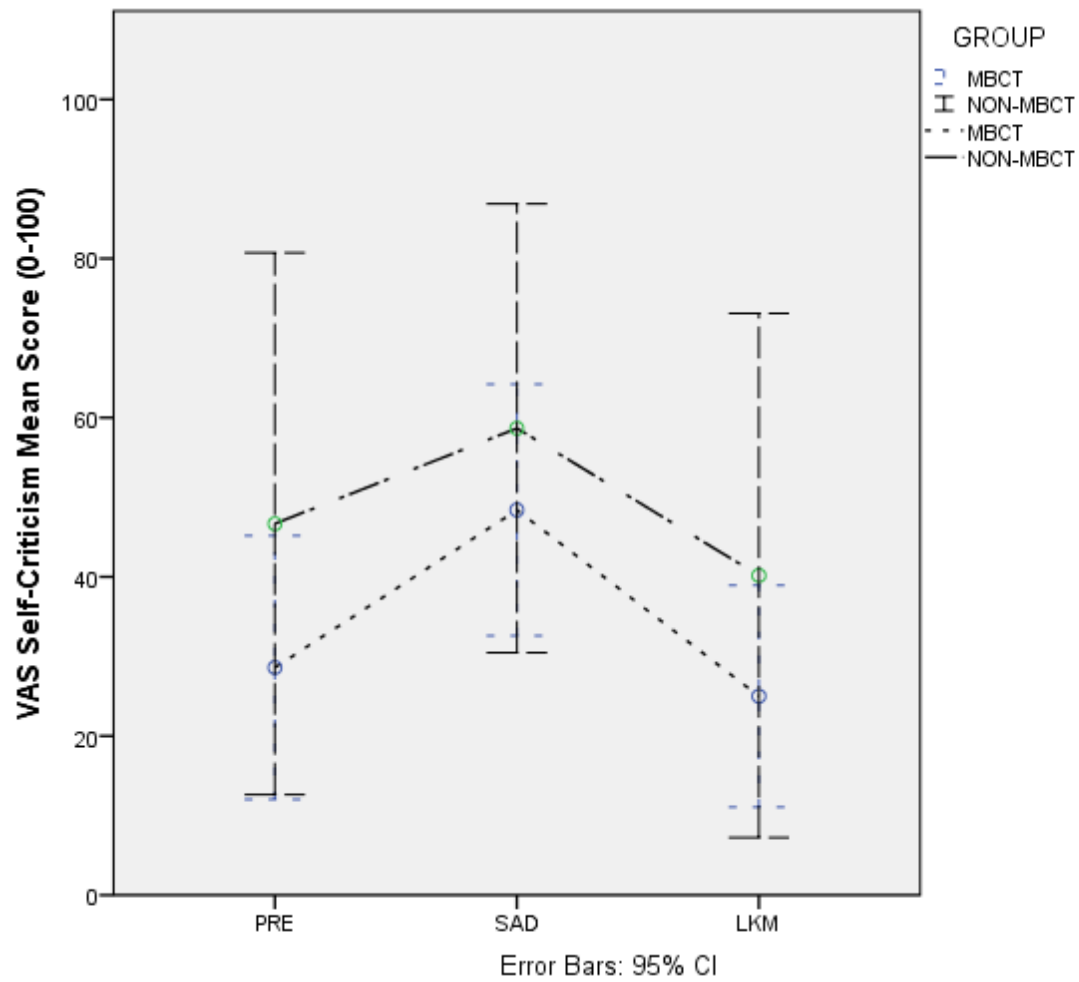


Figure 2. Mean percentage endorsed for the VAS self-criticism subscale by group and time point (with error bars).

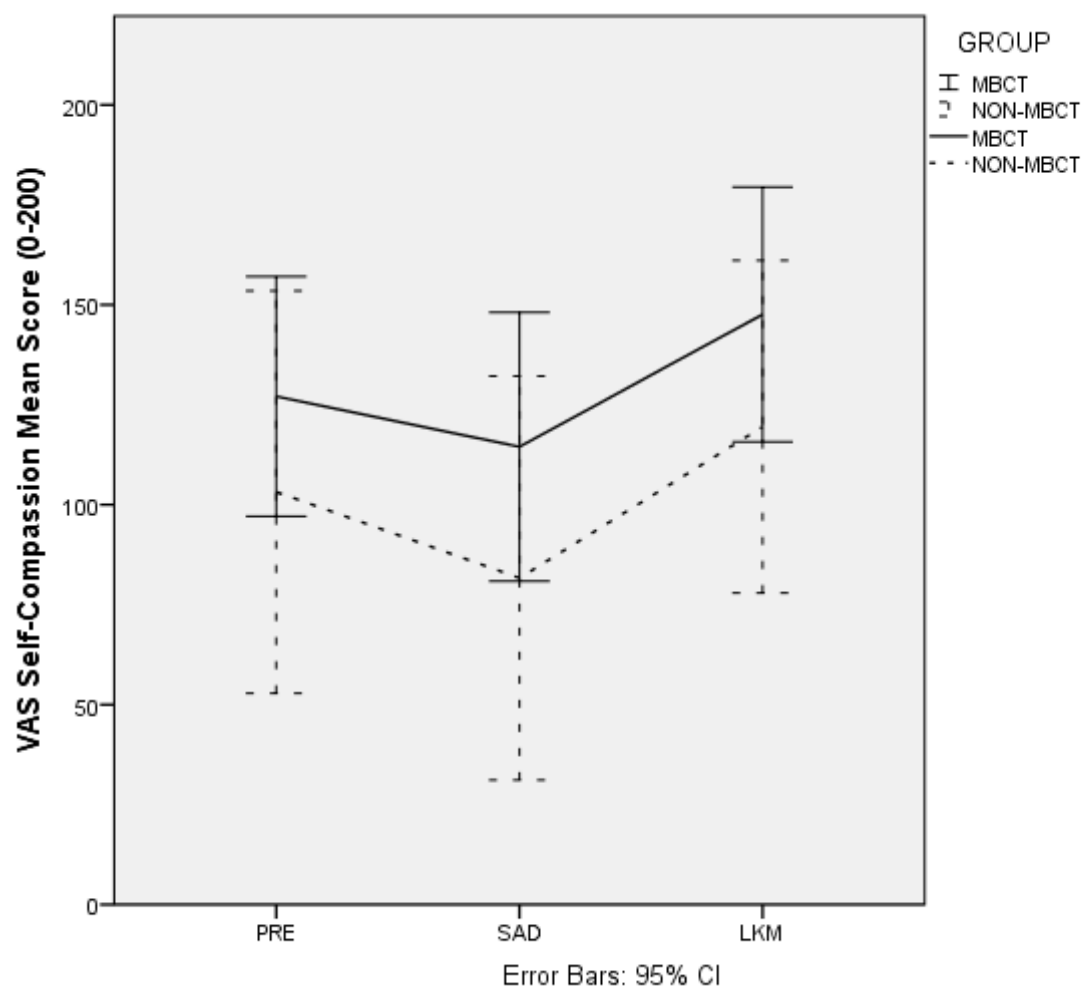


Figure 3. Mean percentage endorsed for the VAS self-compassion subscale by group and time point (with error bars).

Variation between groups.

Pre-measures for the DAS and DSC were lower for the MBCT group, indicating less negative thinking and depressive symptoms at baseline. The VAS indicates that overall the MBCT group were more self-compassionate and less self-critical than the non-MBCT group.

After the mood provocations the difference between the two groups appear to reduce. Due to small sample size it is not known if these differences are significant.

Qualitative Results

Participants described their experiences in both mood phases, their views on the process, including any hypotheses regarding mood repair (if present), addressing the question “How do experiences of an MBCT intervention inform the way in which people respond to sad mood and compassion repair inductions?”

Six main themes were identified: vulnerability versus tolerance of depression; immersion versus transience of cognitive and emotional reactivity; avoidance versus tolerance of compassion; self-criticism versus self-acceptance; locus of control and mechanisms of repair. Data pertaining to the question “does this vary according to experience of MBCT?” is addressed within each theme and summarised at the end.

Vulnerability versus tolerance of depression.

In line with the quantitative data, all participants described experiencing a reduction in their mood during the sad mood induction. For some, this depressed state was familiar and well-rehearsed, for others it was intolerable and reminded them of the fragility of their current “wellness”.

I think I've visited it so many times, without trying to, so I knew that would happen. (C)

Participants experienced a range of emotions: sadness, anger, frustration, anxiety, guilt, hopelessness and helplessness. They described themselves as being “*immersed*” (A), with feelings of lethargy, increased heart rate and breathing, immobilisation and tearful.

The ease with which the sad mood was induced appeared to relate to the participants’ current mood state, the emotional saliency of the sad memory and the participant’s ability to tolerate the negative mood state.

Vulnerability to depression.

Attempts to avoid low mood were substantial within participants’ transcripts (predominantly non-MBCT), with a sense that experiencing low mood might reactivate underlying depression.

At points throughout the mood induction, participants appeared to observe a disconnect with their emotions and bodily sensations, represented in an absence of feeling or lack of words. This suggests that the provocation of low mood may have resulted in an alexithymic reaction within the participants.

It didn't make me feel that sad because I've become so numb. (E)

Others employed psychological defences such as humour, intellectualising, “tuning out” or analysing, to escape the vulnerability they experienced:

It was too painful that I'm bringing myself out, like this is a dream movie. (C)

Interestingly, five (one MBCT) respondents described their own attempts at mood repair emerging within the sad mood task; taking a different perspective and enhancing their understanding. Whether this is a product of previous interventions

and therefore adaptive, or a further defence to intolerable sadness, is not possible to determine.

Tolerance of depression.

Three participants (two MBCT) reported feeling calm and able to observe the low mood rather than becoming immersed in it. This may have been avoidance; however, participants were still aware of the low mood and choosing instead to detach from the emotion, and observe it, rather than being carried along with it. This corresponds with the mindfulness concept of decentering.

My body felt very calm, I didn't have any stress points, I was welling up tears-wise, I knew that I was in a sad place. (D)

Those who felt able to tolerate sadness described feeling more optimistic of a recovery and equipped with the necessary skills to repair their mood. They appeared more able to accept their sadness and experienced the emotion without fear or judgement.

you accepted the sadness and the inevitability of what's happened, but you don't have to push things away, because it's ok to think about things. (F)

Immersion versus transience of cognitive and emotional reactivity.

Immersion.

Each transcript described examples of cognitive and emotional reactivity; for some this was a conscious process, for others it transpired through their talk. Participants described being subject to intrusive thoughts, observing their minds

wandering to negative events and noticing more self-criticism emerging. These processes were most apparent within the sad mood provocation. Interviews demonstrated participants engaging in spiralling thoughts, rumination and selective attention to negative stimuli.

I notice I overthink everything, so you could give me a fairly average situation and I think it's the worse thing in the world. (A)

This reactivity appeared to increase the saliency of the sad mood and immerse the participants in negative thinking.

I got caught up in the emotions and then there wasn't much conscious thought then. (J)

Although many were able to leave their sad mood behind, some described the negative thinking as a lingering “shadow” (C):

It's a bit like, when you have a bad dream and when you wake up it disturbs you for a while. (F)

Transience.

Although featured in each transcript, some (predominantly MBCT) felt more able to transcend the negative thinking and manage their thoughts. They described being able to notice their thoughts and redirect their attention to the present moment. Although a key mindfulness strategy, this refocussing was utilised by both groups.

You're not pushing it away to pretend it didn't happen, you're being able to control where it goes to more. (F)

This control, rather than “pushing away,” represents an adaptive response

to negative thinking, promoted by mindfulness, rather than suppressing or dismissing uncomfortable feelings. Although this was endorsed most often by the MBCT group, it is not clear how effective this was in practice.

Avoidance versus tolerance of compassion.

Although all the participants underwent LKM, several chose to disengage from it and develop their own low mood repair. For those who did engage, there was a marked dissonance between people's ability to tolerate compassion for others and self-compassion. This difficulty was apparent in both groups, however those with less practice of MBCT struggled more. One participant from the MBCT group was unable to recall this phase, hypothesising that they may have fallen asleep.

Avoidance.

Five of the 14 (three MBCT) chose not to engage in the self-compassion task, citing difficulties in applying compassion for themselves, feeling uncomfortable, undeserving and not needing it.

It said to say the things to me son, and I said them, but when it comes to saying things back to meself I didn't want to know. (I)

Although these participants were able to apply the loving-kindness to others, there appeared an intolerance of accepting it themselves. This effect is common in highly self-critical people, perceiving self-compassion as threatening. This may be a self-preservation defence, denying the need for compassion, or may be a consequence of self-critical thinking obstructing self-compassion.

Two of the 14 (non-MBCT) struggled to engage in both compassion for themselves and others, citing the meditation was not suited for them:

Although it was nice calm and relaxing word wise, to me it was like poppy-cock. Love yourself, feel safe all that, it's not me. (M)

Those who struggled to engage exhibited avoidance strategies (n=8, 4 MBCT). Passive responses included phased attention and becoming annoyed at the recording. More active responses involved rebelling against the instructions and creating their own modifications to the task.

I don't like when they are very paternalistic, it annoys me... I don't like to be treated like a pet. (G)

I kind of cheat, I always imagine that I'm holding my children, so it's not just coming back to me, it's going to them too. (J)

Regardless of these attempts, people reported experiencing a mood repair, so it is possible that mechanisms besides compassion were acting to alleviate low mood.

Tolerance.

11 participants engaged in an element of LKM. They expressed feelings of calm, content, warmth, love, kindness and support. Physically, they reported feeling more “neutral” (C): slower breathing, more relaxed, clearer mind, “[my] whole system just slowing down” (H), smiling more and feeling sleepy; suggesting activation of the parasympathic nervous system. This report of physical sensations and connection with the body, occurred in line with participants’ experience of MBCT.

Compassion for others. In this section of the LKM participants were asked to extend loving-kindness to people they cared for. Participants chose friends (n=3), partners (n=3), children (n=6) and pets (n=3) and spoke of the relative ease with which they expressed this.

I found it very easy to think about being kind and loving towards somebody else, but really uncomfortable reflecting it back. (O)

The process of selecting an 'other' was noteworthy. Participants cited reasons of unconditional love, care and vulnerability. Several people commented that they had not selected their partner, choosing instead a pet or dependant.

I was thinking kids, husband, then it was maybe a pet, YEAH, my dog.

Instantly this beam comes on my face and I knew it had to be the dog.

(B)

These comments appeared to reflect a more conditional understanding of compassion based on worthiness and need, which may further validate the barriers towards self-compassion for some.

Compassion for selves. Those who were able to extend the loving-kindness to themselves, noted their inner-voice becoming softer in tone and more compassionate. They tended to have a more optimistic view of mindfulness and significantly more familiarity and prior experience. There were several examples of self-compassion demonstrated throughout the texts, both explicit acts and implicit changes in perspective or developments in understanding.

I was seeing myself as a child, but I was myself now and it was like I was comforting her. (E)

I did want to give myself those pleasant thoughts. (B)

Compassion in my own way. Those who did not engage in the LKM still reported experiencing a repair to their low mood, generally undertaken by their own methods:

I think it's being in peace and quiet and being in my own space... thinking about it in a different place you get more perspective on it. (A)

Transcripts were also supplemented with informal examples of self-compassion such as compassionate behaviour - relaxation, reflection and physical activity.

All but one of the participants reported experiencing a repair to their mood by the end of the two tasks. Unfortunately, one person did not experience a repair and described the LKM as further lowering their mood.

Participants were asked to hypothesize regarding the mechanisms that may have mediated their experience of the repair. The degree to which people were able to verbalise these varied, often due to lack of psychological terminology and processes, but could be inferred through their talk. The following three themes explore these potential mechanisms in more detail.

Self-criticism versus self-acceptance.***Self-criticism.***

Self-criticism is a common feature of depression and was present in all transcripts. People experienced self-critical thoughts during both tasks and their occurrence did not seem to be mediated by mindfulness experience. Thoughts of judgement, inadequacy and blame were observed regarding their participation in the sad memory; alongside future thoughts of social desirability, wanting to ensure they were the *right level* of sadness (A) and not ruin the experiment.

Whenever I think negative or judgemental things I just freeze so it's hard to untangle like a big web (E)

Wishing to be able to rewind the clock, but knowing that, waste of time to even think about it. I think feeling of guilt is the worst thing. (G)

These patterns of negative self-critical thinking speak to both the vulnerability to re-experiencing depressed mood and the rationale for the present focus in mindfulness.

Self-acceptance.

One of the ways to counter self-criticism is to develop an unconditional self-view and self-acceptance. Often this means embracing our inadequacies and fostering a more authentic self. For many this is possible through the practice of mindful awareness and non-judgmental attitude.

Evidence of self-acceptance was observed in 11 interviews (5 non-MBCT) and appeared stronger in those participants with greater experience of MBCT. Participants tended to describe self-acceptance as the culmination of a changing self-view.

But I think now I'm more kind to myself about that. That's the main thing I got out of the mindfulness, to stop being so you know hard on myself (P)

Those that did not demonstrate self-acceptance within the interviews also struggled to engage with self-compassion in all but one case (G).

Locus of control.

Participants' perception of their ability to control situations and their responses varied considerably between and within the texts.

External locus of control.

External attributions are a common feature of psychological distress and as such, were more apparent within the sad mood induction. People attributed their mood to others, the location, the music, stressful events. They spoke of their helplessness in these situations and the vulnerability of their position.

It's things that happened to me, rather than things that I can do anything about, and that can then lead on to the feelings of helplessness, and then you've got the underlying sadness cos you just feel like life is going to be like this. And you have no control and, bad things are going to happen. (O)

This lack of agency was also demonstrated in how some participants spoke of their recovery from low mood, attributing the repair to the LKM instructions, compassionate voice or “*knowledgeable*” therapists (F, I)

Internal.

Internal locus of control was referred to by eight participants (two non-MBCT) as being key to having influence over their cognitive and emotional responses. Cultivating an internal locus of control can be protective for well-being as people gain agency from knowing they have the internal resources to support themselves. Examples included: analysing thoughts, gaining a different perspective, disengaging from negative thoughts, and focussing on the present moment. For many, these skills were developed through MBCT practice.

I do still get what I call the rushes, but I recognise them more now and my anchor is usually my breathing. (F)

It makes me think that my present feeling of wellbeing is well, quite precarious, but I think... it isn't because it shows you that I've learned things that I can do to pull myself out of that. (P)

Mechanisms of repair.

As well as the mediators considered above, many potential repair mechanisms were eluded to within the transcripts. In this final theme I have amalgamated these into two sub-themes, one that relates to processes intrinsic to mindfulness practice and another that comprises of non-specific common factors

that may have been influenced by other therapeutic interventions or personal attempts to repair mood.

Mindfulness repair.

A range of concepts intrinsic to mindfulness practice were referred to by participants in supporting their low mood repair. Interestingly, these references were not limited to the MBCT group, suggesting that they may have been acquired elsewhere, either through informal meditation practice, other psychological interventions or common factors inherent to psychological change.

The most commonly mentioned concepts echoed the operational definition of mindfulness (Kabat-Zinn, 2003); shifting attentional awareness to the present moment, decentring from negative thinking and observing thoughts non-judgmentally. Alongside these, people cited specific skills which they employed to support them, such as their ability to re-train their wandering mind and use the breath as an anchor.

I was sort of looking upon it not in a hugely emotive way. I was looking upon it sort of slightly from a distance but, with almost a sort of kindly... neutral look. (K)

MBCT participants, regardless of current adherence, noted the importance of regular mindfulness practice in maintaining these skills.

I find mindfulness difficult because I think I'm not practising enough. (G)

Other mechanisms.

The other mechanisms suggested by the two cohorts were non-specific to MBCT and related to developing a sense of empowerment and a different perspective.

These mechanisms included: an improved sense of self (linked but not limited to self-acceptance); being able to reflect, analyse and rationalise situations; making a choice to act differently (including physical exercise); being influenced by positive others and events; being able to compartmentalise thoughts and finally an awareness that “*time heals*” (G).

I think, it was remembering the children as they are now, not still crying and sad. (J)

It was like I was trying to understand, you've got every reason to feel sad, to analyse. (C)

The utility of these non-specific factors may reflect the participants' journey to managing their depression, both formal and informal. As such the active mechanisms could reflect the common factors present in many psychological interventions rather than specific to MBCT.

Does this vary according to experience of MBCT?

The two cohorts did not differ significantly in either the quantitative measures or qualitative feedback, in their experience of the two tasks. However, there was some differentiation in the MBCT group according to level of practice of MBCT.

There was considerable variability in both groups regarding the ease with which people entered and tolerated the sad mood task, although those with greater MBCT experience appeared more optimistic of their ability to repair. Consistent with this, those with greater experience of MBCT (n=4) appeared more able to transcend their negative thinking (i.e. described by participants as noticing negative thinking and choosing to redirect their attention rather than becoming immersed) and cited more internal resources for enabling this. Those with less MBCT experience and practice (n=6; across both groups) chose to engage less in the LKM, particularly towards themselves; however, this did not appear to affect their ability to repair their low mood (n=15/16 mood repair), utilising both common factors and mindfulness skills acquired throughout their recovery.

Reflecting on the possible mediating factors that influenced participants' ability to engage more positively in the LKM, and hence experience a more compassionate repair were: regular practice, alignment to mindfulness principles and optimism regarding its ability to repair.

In conclusion, the MBCT and non-MBCT groups did not appear to differ in their overall responses to the mood induction tasks, with both groups experiencing sad mood and mood repair. However, within the MBCT group, those with more experience and practice of MBCT appeared more able to tolerate low mood, transcend their negative thinking, and utilise the LKM for both themselves and others.

Discussion

This study aimed to explore the lived experience of people with recurrent depression during a sad mood induction and compassionate repair; and whether this experience varied according to experience of MBCT.

The results of the quantitative measures and individual interviews suggested that the sad mood induction was effective in inducing low mood for all participants and the LKM was successful in repairing mood in all but one of the participants. Those in the MBCT cohort had lower levels of depressive symptoms and endorsed fewer self-critical and dysfunctional thinking styles according to baseline measures (although the variance for both groups was quite high). Due to the small sample size, it is not known if this effect is significant.

The thematic analysis established six main themes pertaining to the experience of the mood induction and repair: Vulnerability versus tolerance of depression; immersion versus transience of cognitive and emotional reactivity; avoidance versus tolerance of compassion; self-criticism versus self-acceptance; locus of control and mechanisms of repair.

Since this is the first study to qualitatively explore experience of a mood induction and repair, there are no specific studies to compare; however, qualitative research into experiences of mindfulness groups identified themes of acceptance and control as significant (Allen et al., 2009; Mason & Hargreaves, 2001); and studies with depressed clients revealed the presence of negative thoughts and external locus of control are common (Kadam, Croft, McLeod, & Hutchinson, 2001; Johnson & Sarason, 1978).

When compared between groups, these themes appeared to be endorsed equally by those with and without experience of MBCT. However, when level of MBCT practice was considered, those with greater practice appeared more able to transcend negative thinking and utilise the LKM more effectively for both themselves and others. This is consistent with Lutz, Greischar, Perlman and Davidson (2009) and Kuyken et al.'s (2010) findings that although meditators may experience similar levels of negative thinking, they may attend to the thoughts differently. Furthermore, the hypothesis that this effect may be mediated by quantity of mindfulness practice is supported by Baer, Lykins and Peters (2012), who found an association between mindfulness practice, mindfulness skills, self-compassion and wellbeing.

The experience of participants within the sad mood provocation was consistent with those experienced in studies (Segal et al., 2006). However, the qualitative analysis allows for a deeper understanding of these experiences. The presence of CR, external locus of control and self-critical thinking within the transcripts, is supportive of key features of recurrent depression likely to be reactivated when sad mood is induced (Segal et al., 2006). It is these processes that mindfulness aims to target, through decentring from negative thinking and responding more skilfully to it (Allen et al., 2009). The presence of alexithymia, which may not have been identified within self-report measures, may be a result of psychological defences such as emotional inhibition (Helmes, McNeill, Holden, & Jackson, 2008) or may be linked to a stable personality trait reactivated in low mood (Saarijarvi, Salminen, & Toikka, 2001).

As was evident within this study, self-compassion is not effective for everyone and in some cases can be aversive (Gilbert et al., 2012). There are several reasons why an individual may struggle with developing self-compassion. People with an insecure attachment history may have limited experience of the qualities of compassion, and therefore may struggle to develop self-soothing (Gilbert et al., 2008). Secondly, Gilbert and Procter (2006) observed that high levels of shame and self-criticism result in the self becoming overwhelmed and threatened, presenting barriers to self-compassion. Furthermore, Arieti and Bemporad (1980) posited that some depressed people struggle with positive emotions, assuming they will be fleeting. It is possible that each of these factors may have been present in this study; however, data pertaining to these were not gathered. Future research designs may wish to account for this.

The presence of mood repair did not appear to differ across group or with MBCT experience. There are several possible hypotheses for this finding. Firstly, it is possible that regardless of MBCT experience, LKM is a useful tool for fostering compassion and repair within people with recurrent depression. This has implications for its effectivity and use within clinical settings. Hoffman et al., (2011) have suggested that LKM and compassion may be effective treatments for a range of clinical presentations including depression.

Secondly, it is possible that there may be dissonance between the participants' self-report and their objective measures (Kirschner, Kuyken, & Karl, in prep.). Interestingly, this discord was observed to some degree between the qualitative and quantitative measures, for example the person who did not report experiencing a repair to their mood, showed non-reliable improvement in their

scores. Similarly, several participants reporting considerable repair during interview did not reflect this within their self-report measures. This effect may be due to the measures used, errors in the self-administration or social desirability bias. However, it may also reflect the challenge for participants of introspection and assessing their mood accurately (Farb et al., 2015; Thomas & Diener, 1990). Future research would benefit from considering this dissonance, and further triangulate these data with psychophysiology results.

Thirdly, the results may reflect the emotional regulation strategies employed within this sample. One hypothesis is that several participants, although describing decentering their thoughts, which would represent an adaptive response; may instead have been suppressing their thoughts, which Gross and John (2003) posit is linked to negative well-being. Future research would benefit from validating the fidelity of individual's strategies.

Fourthly, lack of difference may be the result of the small sample size and lack of differentiation between the two groups, future studies with larger sample sizes could explore this further.

Finally, it is possible that those with limited MBCT experience may have utilised the repair differently from those with more experience, and therefore have different active mechanisms. Those from the MBCT group appeared to embrace the principles of mindfulness within their compassionate repair and their comments regarding active ingredients are consistent with other mindfulness-based qualitative research (Allen et al., 2009; Mason & Hargreaves, 2001; Finucane & Mercer, 2006). However, in this study there was also considerable evidence of non-specific, common factor mechanisms, utilised by both cohorts within the repair.

There is significant debate currently, regarding the active mechanisms of mindfulness (Gu, Strauss, Bond, & Cavanagh, 2015). Williams et al., (2014) conducted a large dismantling study of MBCT and found no significant advantage over active controls, suggesting that some of the effect of MBCT may be due to non-specific group and psychoeducational effects.

The utility of non-specific mechanisms also highlighted the fact that many of the participants in the study had undergone several psychological and pharmacological interventions, as is true in the general population with recurrent depression (NICE, 2012). As such, participants are likely to use a combination of approaches to repair low mood, which is likely to create confounding variables in any mechanism research. Future studies would benefit from considering this and ensuring that participants are matched for previous interventions.

Strengths and Limitations

This is the first study to use a mixed-methods design to evaluate the experiences of people with recurrent depression during a mood induction and repair. As such it offers a unique perspective into the client experience of induced low mood and explores the process of their attempts to utilise self-compassion to repair their mood. The qualitative data offer an opportunity to explore the potential active mechanisms of MBCT and how these are experienced and implemented by the participant. It also enabled a greater depth of understanding as to how participants approach a mood repair and contributed to our understanding of the challenges of self-compassion. Triangulation of these data with quantitative self-report measures added further information about the experiences of the two groups, whilst highlighting dissonance between the measures.

A limitation of this study was the heterogeneity within the groups and small sample size, which limits the validity of the between-group conclusions. Initial plans were to recruit 10 participants to each group; however, in the six-month recruitment period (and contacting >200 people) we had limited interest, particularly in the non-MBCT group. Several of those who did participate in the non-MBCT group had an interest in mindfulness, which may present a selection-bias. Further, several in the MBCT had lapsed in their current practice. Some of this limitation was accounted for through the operationalisation of “experience” of MBCT; however, future studies would benefit from a wider recruitment strategy and a standardised assessment of mindfulness skill, such as the Kentucky Inventory of Mindfulness Skills (KIMS; Baer, Smith, & Allen; 2004).

A further potential limitation was the laboratory condition. Several of the participants commented on their understanding that the sad mood was temporary and that they “*knew [the researchers] wouldn’t leave them feeling low*”. This reduces the ecological validity of the study and may not reflect participants’ natural reactions. Future studies would benefit from exploring how compassionate repair may be conducted more naturalistically, perhaps using virtual reality environments.

Clinical Implications

The results have several implications for clinical practice. First, the finding that all participants, regardless of experience, exhibited CR, suggest that this may be a stable feature of recurrent depression and as such should be highlighted to those with this diagnosis. Identifying these patterns may be the first step in acknowledging these responses, therefore normalising the experience for the client. Further, the finding that the effect of CR could be mediated by MBCT experience shows that MBCT may be effective in transforming the way people relate to thoughts. Clinicians could be encouraged to support clients in noticing negative thinking and teaching skills to disengage from these unhelpful patterns. Further, this finding suggests that MBCT courses are a positive addition to mental health provision for people with recurrent depression.

LKM may be effective at supporting people with recurrent depression to interrupt the effects of CR and repair transient low mood. Although this effect warrants further investigation, this may suggest that LKM may be a useful addition to mental health services’ provision.

The evidence for greater impact of LKM and reduced impact of CR in those with greater experience of MBCT suggests there may be a dose-effect of MBCT. This has implications for clients and clinicians in terms of ensuring adherence and practice during and beyond the course. It also has implications for service provision in respect to length of courses, reunions and “top-up” sessions to promote long-term adherence and improved outcomes.

The finding that self-compassion was aversion to some has significant implications for psychological therapies, which often have self-compassion as their base, and may offer some explanation of attrition within therapies. Therapists should be mindful of this and consider other ways of supporting clients to self-soothe.

Finally, the finding that non-specific factors were utilised alongside mindfulness strategies for both cohorts, first suggests the importance of clinicians validating the existing methods that clients employ to regulate their mood, as well as empowering clients to develop their own personal resources to increase their internal locus of control. It also indicates that further research into the active mechanisms of mindfulness is required.

Conclusions

The findings of this study suggest that LKM may be a useful tool in supporting the repair of transitory low mood in people with a diagnosis of recurrent depression. There was an indication that this effect was enhanced in those with greater MBCT experience; however, further research is needed to explore whether this effect is significant. The findings have implications for clinical practice in terms

of mood management in recurrent depression and offer further insights into the potential mechanisms of MBCT.

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Appendix A

Glossary of Terms

Loving kindness meditation (LKM)	A meditation practice designed to cultivate connection and love for self and others (Hutcherson, Seppala & Gross, 2008). In this practice individuals direct their attention towards compassion for themselves and others in order to create positive feelings and kindness towards themselves and others. For the purposes of this study LKM refers to the 12-minute recorded exercise which asked participants to direct loving-kindness first towards someone/something they cared for and then towards themselves.
Mindfulness	Kabat-Zinn defined Mindfulness as “paying attention in a particular way; on purpose, in the present moment, and nonjudgmentally” (1994; p. 4). In this study I refer to Mindfulness as any mindfulness meditation practice or mindfulness-based programme such as MBSR, MBCT or other variation.
Mindfulness-based cognitive therapy (MBCT)	MBCT is an eight-week group programme combining the original MBSR programme with elements of cognitive behavioural therapy. In this study MBCT refers to the standard eight-week programme.
Self-acceptance	This study uses the definition of self-acceptance provided by Xu, Zhou, Fu and Rodriguez (2017), that self-acceptance is “holding a positive attitude towards every aspect of the self, past, present and future”. (p. 2157).
Self-compassion	This study utilises Neff’s (2003) definition of self-compassion as an emotional positive self-attitude which consists of self-kindness, common humanity and mindfulness. It “involves offering non-judgmental understanding to one’s pain, inadequacies and failures, so that one’s experience is seen as part of the larger human experience.” (p.87).

Appendix B

Telephone Screening

Date:.....

Name:

Age:

Gender:

Phone number:.....

Assigned:

Screening Questions:

Diagnosis of recurrent depression

A	Have you ever had a brain surgery?	Yes/no
B	Do you have epilepsy?	Yes/no
C	Do you regularly take drugs?	Yes/no
D	Regular medication (psychopharmacological, cardiovascular - changed within the last month?)	Yes/no
E	Do you have a diagnosed skin condition/ sensitive skin?	Yes/no
F	Meditation Experience	1 no 2 a bit 3 a lot
G	MBCT	Yes/no

Participant information sheet

Any questions

Verbal consent

Appendix C

Hamilton Rating Scale for Depression (HAM-D)

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Appendix C

Hamilton Rating Scale for Depression (HAM-D)

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Appendix D Structured Interview

Check if any information has changed

Date:.....

Name:

Age:

Gender:

Phone number:.....

Assigned:

Screening Questions:

Diagnosis of recurrent depression

A	Have you ever had a brain surgery?	Yes/no
B	Do you have epilepsy?	Yes/no
C	Do you regularly take drugs?	Yes/no
D	Regular medication (psychopharmacological, cardiovascular -changed within the last month?)	Yes/no
E	Do you have a diagnosed skin condition/ sensitive skin?	Yes/no
F	Meditation Experience	1 no 2 a bit 3 a lot
G	MBCT	Yes/no

Participant information sheet

Any questions

Verbal consent

Adherence to mindfulness practice

Which of the following statements best describes your use of mindfulness techniques (both formal practices and mindful activities)?

- ☐ I've used mindfulness practices regularly
- ☐ I used mindfulness techniques for a while after the MBCT course but my practice has tailed off and I no longer practice.
- ☐ I've used mindfulness techniques on and off
- ☐ I have not used mindfulness techniques at all

I am now going to read out a number of techniques that you learnt during the MBCT course. For each technique please tell me how much you practice this currently and how much you have practiced over the past year.

	Current practice	Over the past year
Body scan	times per	
Sitting meditation	times per	
Breathing space	times per	
Mindful walking	times per	
Mindful movement / Yoga	times per	

Attendance at reunions

Did you attend the MBCT reunions?

NO / YES

If yes, how many? _____

If no, what was your reason for not attending?

Medication

Have you been taking any antidepressant medication since we last spoke 12 months ago?

NO / YES

If yes, name of antidepressant _____

What is your daily dose? _____

Details of any changes in medication during last 12 months:

CURRENT MAJOR DEPRESSIVE EPISODE**Current depressive episode *during the last month.***

1.	Depressed or down (2 wks+)	?	1	2	3
2.	Loss interest/ pleasure (most activities/day).	?	1	2	3
3.	Weight change ([] increased / [] decreased)	?	1	2	3
4.	Sleep change ([] insomnia / [] hypersomnia)	?	1	2	3
5.	Psychomotor [] agitation/ [] retardation	?	1	2	3
6.	Fatigue/low energy	?	1	2	3
7.	[] Worthlessness/ [] Guilt (NB excessive or inappropriate)	?	1	2	3
8.	Concentration ([] thinking/ [] indecisiveness)	?	1	2	3
9.	Suicide	?	1	2	3
	Thought of own death [] Suicidal ideation [] Specific Plan [] Suicide attempt []				

► MAJOR DEPRESSIVE EPISODE (MDE)**5 Sxs coded "3", and at least one of these is item 1 or 2.****1****3**

C. Functional Impairment	?	1	2	3
D. Not Due to General Medical Condition/ Substance abuse	?	1	3	
E. If unclear: Recent Bereavement	?	1		3

PAST MAJOR DEPRESSIVE SYNDROME [LAST 12 MONTHS]**Depressive episodes in the past**

- | | | | | | |
|----|--|---|---|---|---|
| 1. | Depressed or down (2 wks+) | ? | 1 | 2 | 3 |
| 2. | Less interest/pleasure (most activities/day) | ? | 1 | 2 | 3 |

Most recent episode

- | | | | | | |
|----|--|---|---|---|---|
| 3. | Weight change ([] increased / [] decreased) | ? | 1 | 2 | 3 |
| 4. | Sleep change ([] insomnia / [] hypersomnia) | ? | 1 | 2 | 3 |
| 5. | Psychomotor [] agitation/ [] retardation | ? | 1 | 2 | 3 |
| 6. | Fatigue/low energy | ? | 1 | 2 | 3 |
| 7. | [] Worthlessness/ [] Guilt (NB excessive or inappropriate) | ? | 1 | 2 | 3 |
| 8. | Concentration ([] thinking/ [] indecisiveness) | ? | 1 | 2 | 3 |
| 9. | Suicide | ? | 1 | 2 | 3 |

Thought of own death [] Suicidal ideation [] Specific Plan [] Suicide attempt []

5 sxs coded "3", and at least one of these is item 1 or 2.	1	3
---	----------	----------

C. Functional Impairment	?	1	2	3
---------------------------------	----------	----------	----------	----------

D. Not Due to General Medical Condition/ Substance abuse	?	1	3
---	----------	----------	----------

E. Recent Bereavement	?	1	3
------------------------------	----------	----------	----------

How many times have you felt like this in the past?

--

Appendix E

Dysfunctional Attitudes Scale (DAS A&B)

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Appendix E

Dysfunctional Attitudes Scale (DAS A&B)

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Appendix E

Dysfunctional Attitudes Scale (DAS A&B)

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Appendix E

Dysfunctional Attitudes Scale (DAS A&B)

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Appendix E

Dysfunctional Attitudes Scale (DAS A&B)

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Appendix E

Dysfunctional Attitudes Scale (DAS A&B)

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Appendix E

Dysfunctional Attitudes Scale (DAS A&B)

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Appendix E

Dysfunctional Attitudes Scale (DAS A&B)

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Appendix F

Depressive Symptom Checklist (DSC)

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Appendix G

Self-Compassion Scale (SCS)

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Appendix G

Self-Compassion Scale (SCS)

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Appendix H

The Forms of Self-Criticism/Attacking & Self-Reassuring Scale (FSCRS)

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Appendix H

The Forms of Self-Criticism/Attacking & Self-Reassuring Scale (FSCRS)

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Appendix H

The Forms of Self-Criticism/Attacking & Self-Reassuring Scale (FSCRS)

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Appendix H

The Forms of Self-Criticism/Attacking & Self-Reassuring Scale (FSCRS)

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Appendix I

Beck Depression Inventory (BDI-II)

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Appendix I

Beck Depression Inventory (BDI-II)

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Appendix J.**DAS A to B Equivalency Equation (Weissman; 1979; Equation 1).**

$$Y = 0.978 X + 3.43,$$

Where:

X = score on DAS-A;

Y = score on DAS-B

(1)

Appendix K

Visual Analogue Scale (VAS)

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Appendix K

Visual Analogue Scale (VAS)

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Appendix K

Visual Analogue Scale (VAS)

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Appendix L

Interview Schedule

The role of self-compassion in mood repair for people with recurrent depression with and without experience of mindfulness.

1. Can you tell me what you experienced during the first exercise (with the music)?

Possible prompts: What happened? How did you feel? What did you notice in your thoughts? What did you notice in your body? Did you notice any changes throughout the mood induction? How able were you to focus on the task?

2. Can you tell me what you experienced during the second exercise (meditation)?

Possible prompts: What happened? What did you start the exercise feeling/thinking? How did you feel during? What did you notice in your thoughts? What did you notice in your body? Did you notice any changes throughout the compassion exercise? How able were you to focus on the task?

3. What happened to your mood throughout the whole exercise?

Possible prompts: How able were you to leave the sad mood behind? If you did, how? If not, what made it persist? Did they notice any sad mood, thoughts, feelings, bodily sensations carried forward into LKM? What feelings did you experience? How did this relate to your thoughts? What feelings are you left with? Were you aware of anything that helped you during the process? Were you aware of anything that didn't help you during the process?

4. What happened to your thoughts throughout the whole exercise?

Possible prompts: What happened to the content of your thoughts? What happened to the frequency? Tone? Impact? Were you aware of anything that helped you during the process? Were you aware of anything that didn't help you during the process?

5. How did you perceive yourself through the exercise?

Possible prompts: What happened to your view of yourself during the sad mood induction? Compassion exercise? Were you aware of anything that helped you during the process? Were you aware of anything that didn't help you during the process?

6. How did you find the exercises overall?

Possible prompts: Did you have any reflections on the exercises overall? Was it as you expected? Were there any elements that surprised you? Were any parts of the exercises harder to accomplish than others? What are you left with now? How are you feeling on leaving?

Appendix M

Ethics form



Health Research Authority

NRES Committee South West - Cornwall & Plymouth

Level 3
Block B
Whitefriars
Lewins Mead
Bristol
BS1 2NT

Telephone: 01173421390
Fax: 01173420445

06 February 2015

Hans Kirschner
PhD Student
University of Exeter
Perry Road
School of Psychology
University of Exeter
EX4 4JE

Dear Mr Kirschner

Study title:	Processing of a sad memory in individuals with a history of depression
REC reference:	14/SW/1172
Protocol number:	Protocol_Ethics
IRAS project ID:	169108

Thank you for your letter of 16th January 2015, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this favourable opinion letter. The expectation is that this information will be published for all studies that receive an ethical opinion but should you wish to provide a substitute contact point, wish to make a request to defer, or require further information, please contact the REC Manager, Mrs Kirsten Peck, nrescommittee.southwest-cornwall-plymouth@nhs.net. Under very limited circumstances (e.g. for student research which has received an unfavourable opinion), it may be possible to grant an exemption to the publication of the study.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above

A Research Ethics Committee established by the Health Research Authority

Appendix M

Ethics form

research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database. This should be before the first participant is recruited but no later than 6 weeks after recruitment of the first participant.

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to request a deferral for study registration within the required timeframe, they should contact hra.studyregistration@nhs.net. The expectation is that all clinical trials will be registered, however, in exceptional circumstances non registration may be permissible with prior agreement from NRES. Guidance on where to register is provided on the HRA website.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see

Appendix M

Ethics form

"Conditions of the favourable opinion" below).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Covering letter on headed paper		14 November 2014
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only)	Version 1.0, 14/11/2014	14 November 2014
Letter from sponsor	Version 1.0, 14/11/2014	14 November 2014
Letters of invitation to participant [Version 1.0, 14/11/2014]		14 November 2014
Letters of invitation to participant [Invitation letter with interview]	Version 1.0, 14/11/2014	14 November 2014
Other [Liability]		14 November 2014
Other [Poster]	1	01 February 2013
Other [Materials]	1	14 November 2014
Other [Debrief Sheet]	1	06 November 2014
Other [CV for Willem Kuyken]		14 November 2014
Other [MDC Risk Protocol]	(Version 1.0, 06/11/2014)	06 November 2014
Other [CV for Willem Kuyken]		15 January 2015
Other [Protocol]	1	06 November 2014
Other [Response letter]		15 January 2015
Other [PIS Non MBCT Group with interview]	v2	15 January 2015
Other [Non MBCT Group]	v2	15 January 2015
Other [PIS MBCT Group]	v2	15 January 2015
Other [PIS MBCT Group with interview]	v2	15 January 2015
Participant consent form	Version 1.0, 14/11/2014	06 November 2014
REC Application Form [REC_Form_21112014]		21 November 2014
Summary CV for Chief Investigator (CI)	Version 1.0, 14/11/2014	14 November 2014
Summary CV for supervisor (student research)		14 November 2014

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

Appendix M

Ethics form

The attached document “*After ethical review – guidance for researchers*” gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The HRA website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website: <http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/>

HRA Training

We are pleased to welcome researchers and R&D staff at our training days – see details at <http://www.hra.nhs.uk/hra-training/>

14/SW/1172	Please quote this number on all correspondence
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With the Committee’s best wishes for the success of this project.

Yours sincerely



Canon Ian Ainsworth-Smith
Chair

Email: nrescommittee.southwest-cornwall-plymouth@nhs.net

Enclosures: “After ethical review – guidance for researchers” [SL-AR2]

Copy to: Gail M Seymour
Miss Lynda Garcia, Royal Devon & Exeter NHS Foundation Trust

Appendix N Minor Amendments Request

Notification of Non-Substantial/Minor Amendments(s) for NHS Studies

This template **must only** be used to notify NHS/HSC R&D office(s) of amendments, which are **NOT** categorised as Substantial Amendments.

If you need to notify a Substantial Amendment to your study then you MUST use the appropriate Substantial Amendment form in IRAS.

Instructions for using this template

- For guidance on amendments refer to <http://www.hra.nhs.uk/research-community/during-your-research-project/amendments/>
- This template should be completed by the CI and optionally authorised by Sponsor, if required by sponsor guidelines.
- This form should be submitted according to the instructions provided for NHS/HSC R&D at <http://www.hra.nhs.uk/research-community/during-your-research-project/amendments/which-review-bodies-need-to-approve-or-be-notified-of-which-types-of-amendments/>. If you do not submit your notification in accordance with these instructions then processing of your submission may be significantly delayed.

1. Study Information

Full title of study:	Processing of a sad memory in individuals with a history of depression
IRAS Project ID:	169108
Sponsor Amendment Notification number:	
Sponsor Amendment Notification date:	
Details of Chief Investigator:	
Name [first name and surname]	Hans Kirschner
Address:	School of Psychology University of Exeter Washington Singer Laboratories Perry Road Exeter
Postcode:	EX4 4QG
Contact telephone number:	01392724633
Email address:	hk283@exeter.ac.uk

Details of Lead Sponsor:

Name:	Gail Seymour
Contact email address:	g.m.seymour@exeter.ac.uk
Details of Lead Nation:	
Name of lead nation <i>delete as appropriate</i>	England
If England led is the study going through CSP? <i>delete as appropriate</i>	Yes / No
Name of lead R&D office:	Claire Heaver Research Facilitator (Non-network) Research & Development Room 417, Noy Scott House Royal Devon & Exeter NHS Foundation Trust Barrack Road Exeter EX2 5DW Tel: 01392 406936 claire.heaver@nhs.net

1. Summary of amendment(s)

This template **must only** be used to notify NHS/HSC R&D office(s) of amendments, which are **NOT** categorised as Substantial Amendments.

If you need to notify a Substantial Amendment to your study then you MUST use the appropriate Substantial Amendment form in IRAS.

Brief description of amendment <i>(please enter each separate amendment in a new row)</i>	Amendment applies to <i>(delete/ list as appropriate)</i>		List relevant supporting document(s), including version numbers <i>(please ensure all referenced supporting documents are submitted with this form)</i>		R&D category of amendment <i>(category A, B, C) For office use only</i>
	Nation	Sites	Document	Version	
We would like to add a researcher (Gemma Palmer) to the research team.	England	All sites or list affected sites	Gemma Palmer CV.pdf	1	
We revised the interview schedule slightly. The main rational stayed the same but as it is planed for the new research Gemma Palmer to conduct the interviews, there have been some minor amendment to the interview. (please see attached the original interview (interview schedule V.1) and the amendment one (interview schedule V.2))			interview schedule V.1 interview schedule V.2	1 2	
As we had to put the study on hold during the last 9 month, we are slightly behind schedule. It was planed to finish the project till 01/11/2015 but we would like to extend the end date till 01/01/2017.					

[Add further rows as required]

1. Declaration(s)

Declaration by Chief Investigator

- I confirm that the information in this form is accurate to the best of my knowledge and I take full responsibility for it.
- I consider that it would be reasonable for the proposed amendment(s) to be implemented.

Signature of Chief Investigator:



Print name: Hans Kirschner

Date: Exeter, 08/04/2016

Optional Declaration by the Sponsor's Representative (as per Sponsor Guidelines)

The sponsor of an approved study is responsible for all amendments made during its conduct.

The person authorising the declaration should be authorised to do so. There is no requirement for a particular level of seniority; the sponsor's rules on delegated authority should be adhered to.

- I confirm the sponsor's support for the amendment(s) in this notification.

Signature of sponsor's representative:



Print name: ...Gail Seymour

Post: ...Research Ethics and Governance Manager

Organisation :University of Exeter

Date: ...12/05/16

Appendix O

Amendments Email Response

From: Heaver Claire (ROYAL DEVON AND EXETER NHS FOUNDATION TRUST) claire.heaver@nhs.net
 Subject: RE: Your Governance Assurance Study
 Date: 8. July 2016 at 13:33
 To: Kirschner, Hans hk283@exeter.ac.uk



Hi Hans,

Many thanks for your e-mail. I'm afraid we don't approve amendments for studies happening outside of a hospital setting. With regard to adding a member of staff to the research team, you only need to ensure that the Chief Investigator is aware and provides approval.

Kind regards,

Claire.

Claire Heaver
Research Facilitator (Non-network)
Research & Development
Room 417, Noy Scott House
Royal Devon & Exeter NHS Foundation Trust
Barrack Road
Exeter
EX2 5DW
Tel: 01392 406936
claire.heaver@nhs.net
Working hours 8.30am – 4.30pm Mon-Fri

From: Kirschner, Hans [<mailto:hk283@exeter.ac.uk>]
Sent: 07 July 2016 15:59
To: Heaver Claire (ROYAL DEVON AND EXETER NHS FOUNDATION TRUST)
Subject: Re: Your Governance Assurance Study

Dear Claire,

Thank you very much for this information. Would it be possible to get an approval letter for the minor amendments we submitted?

All the very best and have a lovely evening!

Hans

 Hans Kirschner
 PhD Student
 School of Psychology
 University of Exeter
 Washington Singer Laboratories
 Perry Road
 Exeter EX4 4QG
 U.K.
 Phone: +44 (0) 1392 724633
 e-mail: hk283@exeter.ac.uk

Appendix O

Amendments Email Response

On 8 Jun 2016, at 16:08, Heaver Claire (ROYAL DEVON AND EXETER NHS FOUNDATION TRUST) <claire.heaver@nhs.net> wrote:

Hi Hans,

Many thanks for your e-mail and I'm sorry to not be in touch for a while.

I got your file ready with all the supporting documentation and took your study to Chris Gardner, the Research & Development Manager, but he is of the opinion that we don't need to provide a Governance Assurance letter for studies such as yours. I'm sorry for all the efforts to which you have gone in getting the documents together, I hadn't realised that Chris would make this decision.

So all you need to do is approach the Mood Disorders Centre directly with the REC Approval that you have.

I would like to wish you all the very best with your study.

Kind regards,

Claire.

Claire Heaver
Research Facilitator (Non-network)
Research & Development
Room 417, Noy Scott House
Royal Devon & Exeter NHS Foundation Trust
Barrack Road
Exeter
EX2 5DW
Tel: 01392 406936
claire.heaver@nhs.net
Working hours 8.30am – 4.30pm Mon-Fri

From: Kirschner, Hans [<mailto:hk283@exeter.ac.uk>]
Sent: 06 June 2016 18:51
To: Heaver Claire (ROYAL DEVON AND EXETER NHS FOUNDATION TRUST)
Subject: Re: Your Governance Assurance Study
Importance: High

Dear Claire,

I hope this finds you well! I just wanted to double-check if you have any updates on our amendments and governance assurance letter (REC REF: 14/SW/1172). Due to submission deadlines we have quite a bit of pressure

Appendix O

Amendments Email Response

to start recruiting soon.

If you have any questions please do not hesitate to contact me.

All the very best and have a lovely week,

Hans

Hans Kirschner
PhD Student
School of Psychology
University of Exeter
Washington Singer Laboratories
Perry Road
Exeter EX4 4QG
U.K.
Phone: +44 (0) 1392 724633
e-mail: hk283@exeter.ac.uk

On 17 May 2016, at 10:11, Heaver Claire (ROYAL DEVON
AND EXETER NHS FOUNDATION TRUST)
<claire.heaver@nhs.net> wrote:

Hi Hans,

Many thanks for your e-mail and thanks for sending all the documents. Before we can provide a Governance Assurance letter, there is only one more thing we need. Can you please provide evidence that your research has been scientifically/peer reviewed by someone independent of the research team.

Many thanks,

Claire.

Claire Heaver
Research Facilitator (Non-network)
Research & Development
Room 417, Noy Scott House
Royal Devon & Exeter NHS Foundation Trust
Barrack Road
Exeter
EX2 5DW
Tel: 01392 406936
claire.heaver@nhs.net
Working hours 8.30am – 4.30pm Mon-Fri

Appendix O

Amendments Email Response

From: Kirschner, Hans [<mailto:hk283@exeter.ac.uk>]
Sent: 14 May 2016 11:15
To: Heaver Claire (ROYAL DEVON AND EXETER NHS FOUNDATION TRUST)
Subject: Re: Your Governance Assurance Study

Dear Claire,

I hope this finds you well! I am very sorry that it took me so long to get back to you. I had to finish my PhD thesis and stopped working on the other projects I was involved in. Please find attached the requested documents for our Study, plus our small amendment request which has been approved by Gail Seymour (see the notification-non-substantialminor-amendments Kirschner.pdf document in the small amendment folder).

Thank you very much for your support and let me know if you have any question.

Have a lovely day and all the very best,

Hans

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If you are not the intended recipient please inform the sender that you have received the message in error before deleting it.
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Appendix O

Amendments Email Response

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to do so is strictly prohibited and may be unlawful.

Thank you for your co-operation.

NHSmMail is the secure email and directory service available for all NHS staff in England and Scotland
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For more information and to find out how you can switch, visit
www.connectingforhealth.nhs.uk/nhsmmail

Appendix P

Participant Invitation Letter



NAME
ADDRESS

13th September 2016

Dear (INSERT PATIENT NAME),

In the past you attended the AccePT Clinic at the Mood Disorders Centre, University of Exeter. During that time you signed a consent form and ticked a box to say that you would be happy to be contacted in the future to be invited to take part in research studies within the Mood Disorders Centre.

If you no longer wish to be on our database of people with an interest in potentially participating in research in the Mood Disorders Centre then please contact the Clinic Administrator on 01392 723493, who will update our records.

Researchers at the centre, Gemma Palmer and Hans Kirschner are currently carrying out a study entitled “Processing of a sad memory in individuals with a history of depression” and are looking to recruit participants. The study has been approved by the University of Exeter School of Psychology Ethics Committee. To be eligible for the study participants need to be **aged 18 years of age or older, have a history of depression** but are **currently feeling well**. We are looking for people who have either **undergone mindfulness-based cognitive therapy** in the past **or** those who have **not undergone mindfulness-based cognitive therapy** in the past. Our records show that you may meet these criteria.

Participation involves a brief telephone interview for information and screening purposes. Following this, you will be asked to attend a one-off laboratory session at the University of Exeter, which will last approximately 2 hours. This session will involve two tasks, a few questionnaires and the measurement of your brain activity, and your heart rate and the sweat response. After the two tasks we will conduct an interview, in which we would like to ask you a few questions around your personal experience during the experimental tasks.

The findings could hopefully help us to understand ways to overcome sad mood more effectively, which could be used in therapy to help prevent depression.

As a thank you **we will reimburse your travel costs and offer £10 for taking part in the laboratory sessions.**

Attached is a Participant Information Sheet which explains what the study is about, and what participation involves. Upon reading this Information Sheet, if you are interested in taking part please contact Gemma Palmer either by email gp322@exeter.ac.uk or telephone 07752 191466 (please leave a message and Gemma will phone you back). If you have any questions about the study, Gemma Palmer will be happy to discuss these with you.

Yours sincerely,

Dr Kim Wright and Prof Barney Dunn
AccEPT Clinic Co-Leads

Appendix Q

MBCT Participant Information Sheet



UNIVERSITY OF EXETER
MOOD DISORDERS CENTRE



Participant Information - MBCT Group with interview

(Version 2.0, 15/01/2015)

Processing of a sad memory in individuals with a history of depression

Principal Researcher: Hans Kirschner
Supervisors: Dr Anke Karl, Professor Willem Kuyken

You are being invited to take part in a study which aims to explore how people respond to a sad memory we ask them to recall and to a brief audio exercise afterwards. Before you decide whether you would like to take part, please read through the following information, which will clarify why the study is being conducted, and what your involvement would be. Take time to decide whether or not you would like to participate.

What is the purpose of the study?

The purpose of the study is to explore how people who have in the past participated in mindfulness-based cognitive therapy (MBCT), respond to a sad memory we ask them to recall and to a brief audio exercise afterwards. The findings could hopefully help us to understand ways to overcome sad mood more effectively, which could be used in therapy to help prevent depression. The study is being carried out as part of the Principal Researcher's PhD.

Why have I been chosen?

You have been chosen because you have a history of depression and you indicated that you underwent an MBCT programme in the past.

Am I required to take part?

It is entirely up to you if you wish to take part. If you do decide to take part, you are free to change your mind at any time and can withdraw during the study by letting the Principle Researcher know. If you decide not to take part after you have started the study, any data collected from you will no longer be included in the results of the study and will instead be destroyed.

Appendix Q

MBCT Participant Information Sheet

What does participation involve?

If you think that you would like to take part and would like to know more, the Principal Researcher can contact you by telephone to discuss the study in more detail, and to answer any questions you may have. During this telephone conversation the researcher will also ask you some questions in order to check whether you are eligible to take part (this should take about 10 minutes). **One of the main inclusion criteria is that we are specifically looking for people who have suffered from depression in the past but not currently and who have participated in an MBCT course that they have completed at the time of this study.** If you are eligible, it will also be possible to arrange a mutually convenient time for the study to be conducted with you. The study will take place at the Mood Disorders Centre at the University of Exeter.

The study will last approximately two hours, depending on how quickly you complete the tasks and if you wish to have breaks. The majority of this time will involve you answering questions asked by the researcher, and completing forms to explore how you are currently feeling. The study will also involve an experiment in which you will listen to a sad piece of music whilst thinking of a sad memory so that we can explore how you respond to a sad mood. As part of the experiment we will then ask you to listen to a tape with a guided meditation exercise. Throughout the experiment we will measure your brain activity, and your heart rate and the sweat response. For this we will place leads on your head, chest and fingers which we fill with a salty gel that can be easily wiped off (you will have the opportunity to wash your hair after the experiment). After the two experimental tasks we will conduct an interview, in which we would like to ask you a few more questions around your personal experience during the experimental tasks.

At the end of the testing session we will ask you to do a short silent reading exercise. The precise instructions of the whole experiment will be given on the day by the researcher.

Expenses and payments:

We will reimburse your travel costs and offer £10 for taking part in the laboratory sessions.

Are there disadvantages of taking part in this study?

Some of the questions in the study ask about symptoms of depression such as feeling low and thoughts of self-harm. Whilst most people do not mind answering these questions, some people may feel upset. However, it is important that we ask these questions. If the study happens to include any activities or questions which, for whatever reason, you find distressing or do not wish to answer, the study can be stopped or the question can be skipped. The study also involves listening to sad music and thinking of a sad memory in order to temporarily lower your mood for a period of time during the experiment. However, we will only ask you to do this if you are currently feeling well and your mood has generally been ok recently.

The measurement of brain activity and bodily responses will be done using safe and well-established procedures; the leads can be removed in less than a minute and the gel can be easily wiped and/or washed off. You may want to wash and blow-dry your hair after the session and this can be done in our lab.

Appendix Q

MBCT Participant Information Sheet

What if there is a problem?

If you wish to complain, or have any concerns about any aspect of the way you have been approached or treated during the course of this study, you can contact the Study Supervisor, Dr Anke Karl (contact details on page 4).

What are the possible advantages of taking part?

There are no direct advantages for you. However, the findings of this study will hopefully help us to understand how emotion processing and brain and body responses are related in depression. This may help us to understand processes and mechanisms that prevent mental health problems, such as depression, and facilitate wellbeing.

Will my taking part in the study be kept confidential?

All information which is collected from you during the research would be kept strictly confidential within the limits of the law. You will be allocated your own unique study code number, ensuring that all information that you give will contain your number rather than your actual name. identifiable information will be stored in a locked cabinet and only the researchers of this project will have access to it. In accordance with British Psychological Society research guidelines, all data for the study will be securely stored away for 20 years and will be destroyed after this time.

What will happen with the results?

It is planned that the results will be written up in order to inform clinicians and researchers who are interested in mood disorders. Any write-up of the findings for this study will not mention you personally. If you would like to obtain a copy of the findings, we will be more than happy to send them to you when they become available.

Who is organising and funding the research?

This research is sponsored by the University of Exeter.

Who has reviewed the study?

All research in the NHS is looked at by an independent group of people called a Research Ethics Committee to protect your safety, rights, wellbeing and dignity. This study has been reviewed and given favourable opinion by NRES Committee South West – Cornwall and Plymouth.

Appendix Q

MBCT Participant Information Sheet

Contact Details:

If you require further information or would like to ask any questions, please do not hesitate to contact the Principal Researcher using the details below.

Principal Researcher:

Hans Kirschner

Mood Disorders Centre
Washington Singer Laboratories
Perry Road
Exeter
EX4 4QG

Tel: 07500924494

Email: hk283@exeter.ac.uk

Supervisors:

Professor Willem Kuyken

Mood Disorders Centre
Washington Singer Laboratories
Perry Road
Exeter
EX4 4QG

Tel: 01392 264659

Email : W.Kuyken@Exeter.ac.uk

Dr Anke Karl

Mood Disorders Centre
Washington Singer Laboratories
Perry Road
Exeter
EX4 4QG

Tel: 01392 725271

Email : A.Karl@exeter.ac.uk

For more information about the Mood Disorder Centre, please visit
<http://www.exeter.ac.uk/mooddisorders/>

Appendix R

Non-MBCT Participant Information Sheet



UNIVERSITY OF EXETER
MOOD DISORDERS CENTRE



Participant Information – Non MBCT Group with interview

(Version 2.0, 15/01/2015)

Processing of a sad memory in individuals with a history of depression

Principal Researcher: Hans Kirschner
Supervisors: Dr Anke Karl, Professor Willem Kuyken

You are being invited to take part in a study which aims to explore how people respond to sad mood. Before you decide whether you would like to take part, please read through the following information, which will clarify why the study is being conducted, and what your involvement would be. Take time to decide whether or not you would like to participate.

What is the purpose of the study?

The purpose of the study is to explore how people with a history of depression who are currently well respond to a sad memory we ask them to recall and to a brief audio exercise afterwards. The findings could hopefully help us to understand how individuals who have currently recovered from depression, experience sad mood, which will hopefully help us to refine therapies that help prevent depression. The study is being carried out as part of the Principal Researcher's PhD.

Why have I been chosen?

You have been chosen because you have a history of depression and you indicated that you haven't undergone a MBCT programme.

Am I required to take part?

It is entirely up to you if you wish to take part. If you do decide to take part, you are free to change your mind at any time and can withdraw during the study by letting the Principle Researcher know. If you decide not to take part after you have started the study, any data collected from you will no longer be included in the results of the study and will instead be destroyed.

Appendix R

Non-MBCT Participant Information Sheet

What does participation involve?

If you think that you would like to take part and would like to know more, the Principal Researcher can contact you by telephone to discuss the study in more detail, and to answer any questions you may have regarding it. During this telephone conversation the researcher will also ask you some questions in order to check whether you are eligible to take part (this should take about 10 minutes). **One of the main inclusion criteria is that we are specifically looking for people who have suffered from depression in the past but are well now and haven't undergone an MBCT course in the past.** If you are eligible, it will also be possible to arrange a mutually convenient time for the study to be conducted with you. The study will take place at the Mood Disorders Centre at the University of Exeter.

The study will last approximately two hours, depending on how quickly you complete the tasks and if you wish to have breaks. The majority of this time will involve you answering questions asked by the researcher, and completing forms to explore how you are currently feeling. The study will also involve an experiment in which you will listen to a sad piece of music whilst thinking of a sad memory so that we can explore how you respond to a sad mood. As part of the experiment we will then ask you to listen to a tape with a guided meditation exercise. Throughout the experiment we will measure your brain activity, and your heart rate and the sweat response. For this we will place leads on your head, chest and fingers which we fill with a salty gel that can be easily wiped off (you will have the opportunity to wash your hair after the experiment). After the two experimental tasks we will conduct an interview, in which we would like to ask you a few more questions around your personal experience during the experimental tasks.

At the end of the testing session we will ask you to do a short silent reading exercise. The precise instructions of the whole experiment will be given on the day by the researcher.

Expenses and payments:

We will reimburse your travel costs and offer £10 for taking part in the laboratory sessions.

Are there disadvantages of taking part in this study?

Some of the questions in the study ask about symptoms of depression such as feeling low and thoughts of self-harm. Whilst most people do not mind answering these questions, some people may feel upset. However, it is important that we ask these questions. If the study happens to include any activities or questions which, for whatever reason, you find distressing or do not wish to answer, the study can be stopped or the question can be skipped. The study also involves listening to sad music and thinking of a sad memory in order to temporarily lower your mood for a period of time during the experiment. However, we will only ask you to do this if you are currently feeling well and your mood has generally been ok recently.

The measurement of brain activity and bodily responses will be done using safe and well-established procedures; the leads can be removed in less than a minute and the gel can be easily wiped and/or washed off. You may want to wash and blow-dry your hair after the session and this can be done in our lab.

Appendix R

Non-MBCT Participant Information Sheet

What if there is a problem?

If you wish to complain, or have any concerns about any aspect of the way you have been approached or treated during the course of this study, you can contact the Study Supervisor, Dr Anke Karl (contact details on page 4).

What are the possible advantages of taking part?

There are no direct advantages for you. However, the findings of this study will hopefully help us to understand how emotion processing and brain and body responses are related in depression. This may help us to understand processes and mechanisms that prevent mental health problems, such as depression, and facilitate wellbeing.

Will my taking part in the study be kept confidential?

All information which is collected from you during the research would be kept strictly confidential within the limits of the law. You will be allocated your own unique study code number, ensuring that all information that you give will contain your number rather than your actual name. Identifiable information will be stored in a locked cabinet and only the researchers of this project will have access to it. In accordance with British Psychological Society research guidelines, all data for the study will be securely stored away for 20 years and will be destroyed after this time.

What will happen with the results?

It is planned that the results will be written up in order to inform clinicians and researchers who are interested in mood disorders. Any write-up of the findings for this study will not mention you personally. If you would like to obtain a copy of the findings, we will be more than happy to send them to you when they become available.

Who is organising and funding the research?

This research is sponsored by the University of Exeter.

Who has reviewed the study?

All research in the NHS is looked at by an independent group of people called a Research Ethics Committee to protect your safety, rights, wellbeing and dignity. This study has been reviewed and given favourable opinion by NRES Committee South West – Cornwall and Plymouth.

Appendix R

Non-MBCT Participant Information Sheet

Contact Details:

If you require further information or would like to ask any questions, please do not hesitate to contact the Principal Researcher using the details below.

Principal Researcher:

Hans Kirschner

Mood Disorders Centre
Washington Singer Laboratories
Perry Road
Exeter
EX4 4QG

Tel: 07500924494

Email: hk283@exeter.ac.uk

Supervisors:

Professor Willem Kuyken

Mood Disorders Centre
Washington Singer Laboratories
Perry Road
Exeter
EX4 4QG

Tel: 01392 264659

Email : W.Kuyken@Exeter.ac.uk

Dr Anke Karl

Mood Disorders Centre
Washington Singer Laboratories
Perry Road
Exeter
EX4 4QG

Tel: 01392 725271

Email : A.Karl@exeter.ac.uk

For more information about the Mood Disorder Centre, please visit
<http://www.exeter.ac.uk/mooddisorders/>

Appendix S

Sad Mood Induction Instructions

Mood Induction Task

- *Introduce mood induction with:*

"In a moment I am going ask you to listen to a piece of music and I would like you to try to get into a sad mood while listening to it. Please could you try hard at doing this because the main point of the experiment hinges on you changing your mood. The music by itself may not automatically put you into a sad mood, and you might have to try quite hard to get into the mood yourself. So, while listening to the sad music, please could you also recall a very specific sad event from your past, which you were personally involved in. This memory can be from any time in your life from childhood right up until what you did before coming here today. As you listen to the music, focus your attention on this sad memory. Imagine what happened, who was with you, and what your thoughts and feelings were at the time – imagine the event as vividly as possible and experience how you felt."

"I will leave you to listen to the music for about 8 minutes and I will be out of the room so I don't distract you. I'll come back into the room quietly at the end of the 8 minutes, and at that point I will ask you to rate your mood again on the same scales and then to fill in another form. I'd like you to keep listening to the music while you do that, and please try and stay in the same mood as the music continues to play and as you fill in the form."

Appendix T

Loving Kindness Meditation Script

Script for Loving Kindness Meditation clip (in the style of Loving-Kindness for Beginners (Neff))

Sit in a comfortable position, reasonably upright and relaxed (pause for 2 sec). You will now be guided through a few minutes exercise with the purpose of bringing warmth and good will into your life. Close your eyes fully or partly (pause for 2 sec). Take a few deep breaths to settle into your body and into the present moment (pause for 3 sec).

Bring to mind a person or other living being who naturally makes you smile. This could be a child, your grandmother, your cat or dog - whoever naturally brings happiness to your heart. Perhaps it's a bird outside your window. Let yourself feel what it's like to be in that being's presence (pause for 2 sec). Allow yourself to enjoy the good company.

(Pause)

Now, recognize how vulnerable this loved one is--just like you, subject to sickness, aging, and death. Also, this being wishes to be happy and free from suffering, just like you and every other living being. Repeat softly and gently, feeling the importance of your words:

May you be safe.

May you be peaceful.

May you be healthy.

May you live with ease.

(Pause)

May you be safe.

May you be peaceful.

May you be healthy.

May you live with ease.

(Pause)

Appendix T

Loving Kindness Meditation Script

When you notice that your mind has wandered, return to the words and the image of the loved one you have in mind. Savour any warm feelings that may arise. Go slow.

(Pause)

Now add yourself to your circle of good will. Put your hand over your heart and feel the warmth and gentle pressure of your hand (for just a moment or for the rest of the exercise), saying:

May you and I be safe.

May you and I be peaceful.

May you and I be healthy.

May you and I live with ease.

(Pause)

May you and I be safe.

May you and I be peaceful.

May you and I be healthy.

May you and I live with ease.

(Pause)

Visualize your whole body in your mind's eye, notice any stress or uneasiness that may be lingering within you, and offer kindness to yourself.

May I be safe.

May I be peaceful.

May I be healthy.

May I live with ease.

Repeat the phrases inwardly with enough space between them so that they are pleasing you. Gather all your attention behind one phrase at a time. (Pause)

If you find your attention wandering, don't worry. You can simply let go of distractions and begin again.

May I be safe.

May I be peaceful.

Appendix T

Loving Kindness Meditation Script

May I be healthy.

May I live with ease. (Pause)

Feelings, thoughts, or memories may come and go; allow them to arise and pass away. Let the anchor be the repetition of this traditional phrases:

May I be safe.

May I be peaceful.

May I be healthy.

May I live with ease. (Pause)

Just rest and sit quietly in your own body, savouring the good will and compassion that flows naturally from your own heart. Know that you can return to the phrases anytime you wish.

(Pause for 15 sec)

Gently open your eyes.

Appendix U

Neutralising Task

Mood neutralization task (Nolen-Hoeksema, S., & Morrow, J., 1993)

At the end of the testing session participants will be asked to spend eight minutes concentrating on neutral sentence (e.g. the layout of a typical classroom).

Appendix U

Neutralising Task

Distraction task

For the next few minutes, try your best to focus your attention on each of the ideas on the following pages.

Read each item slowly and silently to yourself. As you read the items, use your imagination and concentration to focus your mind on each of the ideas. Spend a few moments visualising and concentrating on each item.

Please continue until the experimenter returns.

Think about:
and imagine a boat slowly crossing the Atlantic

Think about:
the layout of a typical classroom

Think about:
the shape of a large black umbrella

Think about:
the movement of an electric fan on a warm day

Think about:
raindrops sliding down a window pane

Think about:
a double-decker bus driving down a street

Think about:
and picture a full moon on a clear night

Think about:
clouds forming in the sky

Think about:
the layout of the local shopping centre

Think about:
and imagine a plane flying overhead

Appendix U

Neutralising Task

Distraction task

Think about:
fire darting round a log in a fire-place

Think about:
and concentrate on the expression on the face of the *Mona Lisa*

Think about:
the car park at a large supermarket

Think about:
two birds sitting on a tree branch

Think about:
the shadow of a stop sign

Think about:
the layout of the local post office

Think about:
the structure of a high-rise office building

Think about:
and picture the Eiffel Tower

Think about:
and imagine a lorryload of apples

Think about:
the pattern on an Oriental rug

Think about:
the 'man in the moon'

Think about:
the shape of the continent of Africa

Appendix U

Neutralising Task

Distraction task

Think about:
a band playing outside

Think about:
a group of polar bears fishing in a stream

Think about:
the shape of Sydney Opera House

Think about:
the shape of Great Britain

Think about:
the way Stonehenge looks at sunset

Think about:
the outline of the Houses of Parliament

Think about:
a train stopped at a station

Think about:
a lone cactus in the desert

Think about:
the shape of the country Italy

Think about:
a row of shampoo bottles on display

Think about:
a petrol station on a major road

Think about:
the fuzz on the shell of a coconut

Think about:
the queens' head on a stamp

Appendix U

Neutralising Task

Distraction task

Think about:
a band playing the National Anthem

Think about:
the shape of a cello

Think about:
the birthmark on Gorbachev's head

Think about:
the shape of the United States of America

Think about:
the baggage claim area at the airport

Think about:
the size of the Statue of Liberty

Think about:
the shape of a cricket bat

Think about:
a freshly painted door

Think about:
the shiny surface of a trumpet

Think about:
a kettle coming to the boil

Appendix V

Additional Quantitative Results

Table A1

<i>Reliable Change by Measure, Time Point and Group</i>					
		<u>Reliable Change Degree</u>	<u>Total</u>	<u>MBCT (n=10)</u>	<u>Non-MBCT (n=6)</u>
<u>DAS (Pre- Post)</u>		Improved	2	1	1
		No change	13	9	4
		Deteriorated	1	0	1
<u>DSC (Pre- Sad mood)</u>	<u>Affective</u>	Improved	0	0	0
		No change	9	4	5
		Deteriorated	7	6	1
	<u>Self- Devaluative</u>	Improved	1	0	1
		No change	10	6	4
		Deteriorated	5	4	1
<u>DSC (Sad mood – LKM)</u>	<u>Affective</u>	Improved	7	5	2
		No change	9	5	4
		Deteriorated	0	0	0
	<u>Self- Devaluative</u>	Improved	4	2	2
		No change	12	8	4
		Deteriorated	0	0	0
<u>DSC (Pre- LKM)</u>	<u>Affective</u>	Improved	3	0	3
		No change	12	9	3
		Deteriorated	1	1	0
	<u>Self- Devaluative</u>	Improved	2	0	2
		No change	13	9	4
		Deteriorated	1	1	0

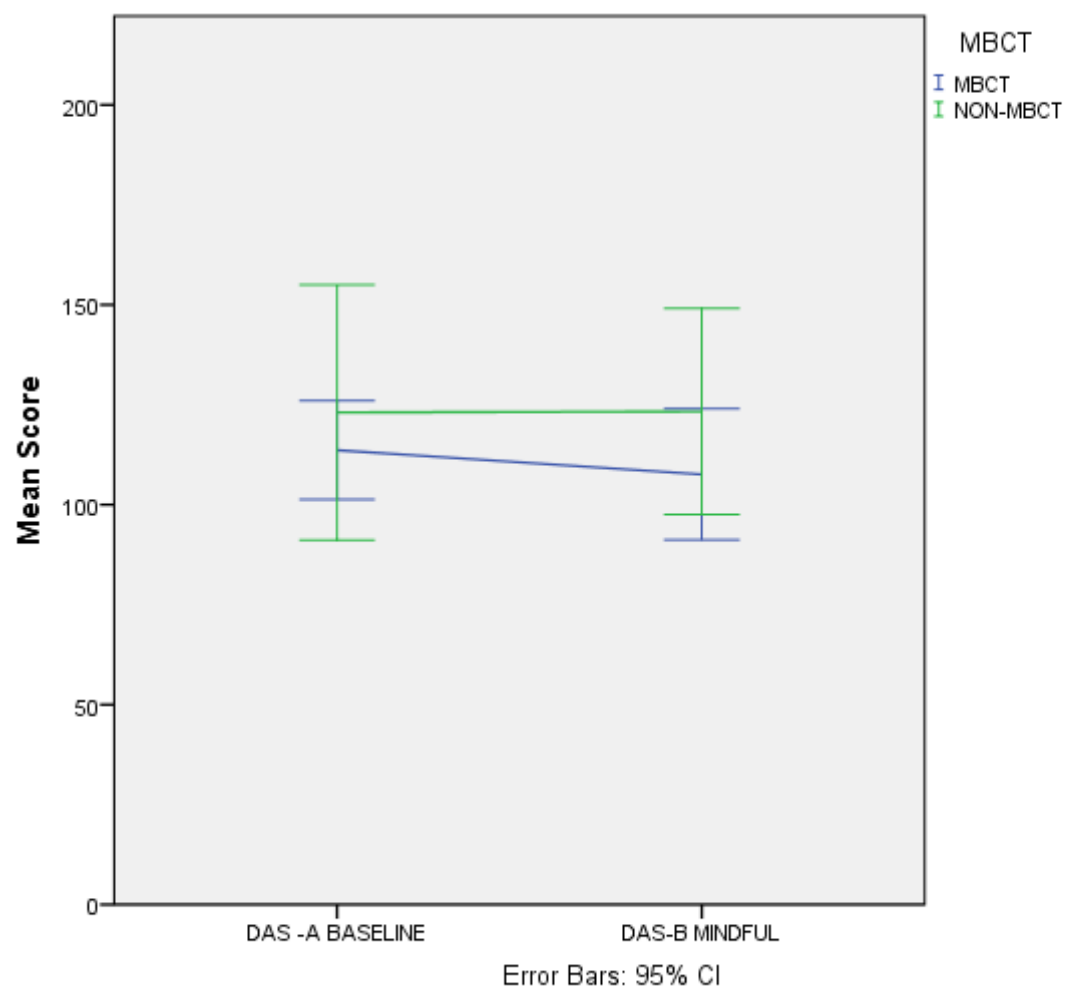


Figure A1. Mean total pre and post DAS scores by group.

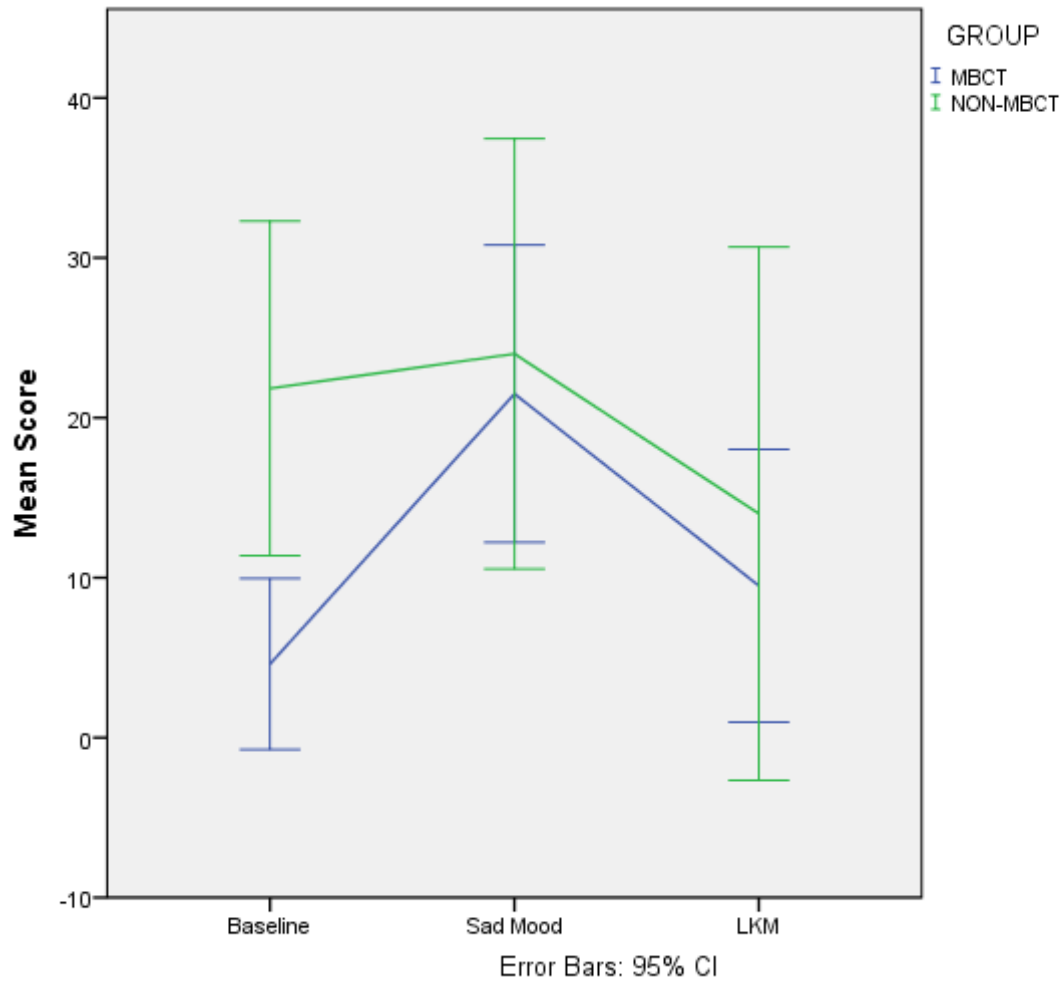


Figure A2. Mean total DSC affective scale scores by group and time point.

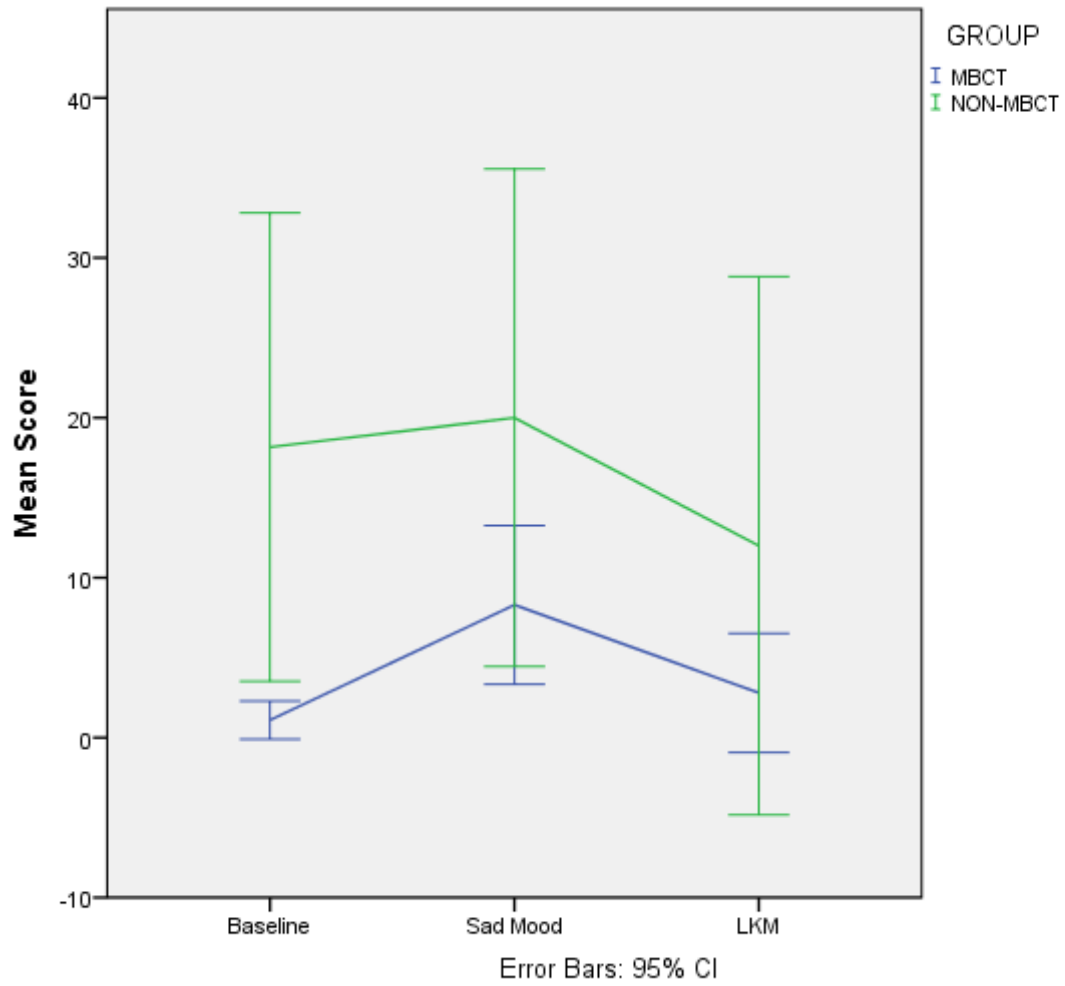


Figure A3. Mean total DSC self-devaluative scale scores by group and time point.

Appendix W

Empirical Themes Additional Quotes

Table A2

Empirical Themes Additional Quotes

<u>Theme</u>	<u>Sub-theme</u>	<u>Additional Quotes</u>
Vulnerability versus tolerance of depression	Vulnerability of depression	<p><i>Just feeling lost (C)</i></p> <p><i>In the beginning I thought... gosh, what have I gone and done this for [laughs]. (J)</i></p> <p><i>I don't really like being sad, I don't deal with that very well, definitely sadness feeling. (B)</i></p>
	Tolerance of depression	<p><i>I was trying to ... to understand, do you know what I mean, almost accept, to sort of say, right yes, you've got every reason to feel sad um.... you know so ... (C)</i></p>
Immersion versus transience of cognitive and emotional reactivity	Immersion of cognitive and emotional reactivity	<p><i>I've been thinking about it for the last four or five days and to be honest I didn't sleep all night and I'm just thinking, why, but I just can't help it. (G)</i></p> <p><i>If I look back to childhood memories I could tell you all the bad things, less likely to tell you the good things, but maybe that's common for most people, I suppose it goes with intense feelings don't they, the sadness is definitely the worse feeling, sticks with you. (B)</i></p>

	Transience of cognitive and emotional reactivity	<i>Now I can, go into it and come out of it, because I just accept that it's happened and there's nothing I can do. (P)</i>
Avoidance versus tolerance of compassion	Avoidance of compassion	<i>Then I thought oh I haven't thought about my son, that's a bit remiss of me, but no he's probably alright. (P)</i>
		<i>I could relax like on my own but like in terms of doing what the ... dude was saying to do I wasn't doing that i wasn't like shutting my eyes or like thinking these phrases that she was saying. I was like kind of doing it by myself .. yeah. (A)</i>
	Tolerance of compassion	<i>H: Quite warmly actually, quite quite pleasant, um, and in fact I think, I think the last ... "you are" I sort of apply to myself before she went to "I", yeah so I'd started to use it to um, to change how I was feeling</i> <i>Researcher: Did you have a sense of, that that was coming or what brought about that</i> <i>H: No I think more that ... I knew it was about, that that sort of mindfulness is about being more accepting and more calm and ok with yourself, so actually that made sense to say you I, you, I, you I you know and take that sense of calm in</i>
Self-criticism versus self-acceptance	Self-criticism	<i>[Laughs] I'm not a very good er subject. (N)</i> <i>Yes, the critical ... sort of side of ... the brain. Yeah, you failed. Yeah. How can you improve. (O)</i>

	Self-acceptance	<i>I like myself now, I never liked myself and that showed on the outside how I was with other people... my kids call me Bridget Jones because I'm slightly away with the fairies a bit scatty and a bit, it is what it is. (B)</i>
Locus of control	External	<i>Every so often my thoughts would wander because my oldest daughter has asked me to do something for her completely out of the blue, and it's difficult for me to say no. (K)</i>
	Internal	<i>I do find on some things that I, there is something inside of me that sort of pushes me on to do things that I wouldn't normally do, it's quite weird in a way, this little positive voice comes into me saying that right, you've got to do this (O)</i>
		<i>Peace and much more of an acceptance of things really, more of an acceptance, I can't alter any of that, I can make a difference I 'spose but I can't alter it. (F)</i>
Mechanisms of repair	Mindfulness	<i>But when I was doing it this time, without any visual stimulus I was sort of looking upon it as a sort, gauging it, or assessing it, almost, not impartially, but yes almost neutrally I suppose. But not in a, a hugely emotive way. I was looking upon it as a sort of slightly from a distance but, with almost a sort of kindly... neutral look. (K)</i>
		<i>I think it primarily it's putting your head straight that sorts it out um, I can get my body calm quite</i>

Other mechanisms

quickly, it's my head that I need to .. and that's why I wanted to do the mindfulness really um .. cos actually tackling that and turning ... that focus not around but just looking at it differently mm. (H)

That's to do with this mindfulness counselling I've had over time, it's sort of changed me inside, it's made me more positive about myself, where I used to be very negative about myself, now I know I can achieve a lot. (I)

What's much more important is how positive I've felt mentally because I can actually look forward to getting dressed in waterproofs and going out in bloody awful weather and doing my exercise and that's a big plus. (P)

The one thing that got me through the bereavement process was plonking myself down around friend's houses and to an extent I still do (K)

Appendix X

Behaviour, Research and Therapy Author Notes

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Appendix Y

Dissemination Statement

The results of this study will be disseminated to interested parties through feedback, journal publication and presentation.

Participants will be invited to receive a copy of the results of the study and given the opportunity to contact the researcher if they wish to discuss them. The results will also be shared with the University of Exeter's Lived Experience group, as they will have been consulted as part of the service-user consultation process.

It is anticipated that both the systematic literature review and the empirical study will be published in peer-reviewed journals. We will specifically target the journal, Behaviour Research and Therapy.

In June 2018 my research findings will be presented to an academic audience, for peer review, as part of the Doctorate in Clinical Psychology at the University of Exeter.

Appendix Z

Highlights for Behaviour, Research and Therapy Journal Submission

Literature Review

- Qualitative synthesis revealed connection as the overarching theme.
- The power of the group community was particularly significant.
- As was the development of intra- to inter-personal change.

Empirical Paper

- All participants experienced a reduction in mood during the sad mood induction
- All but one participant experienced a mood repair using Loving-Kindness Meditation
- No difference was observed between MBCT and non-MBCT groups
- Those with more experience of MBCT appeared to utilise meditation more effectively.